

# TAKING SIDES

The choices before  
the health worker

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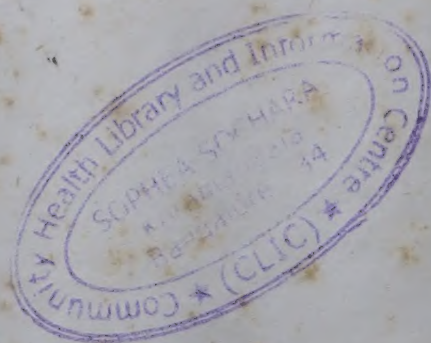


Dr C. Sathyamala

Nirmala Sundharam

Nalini Bhanot





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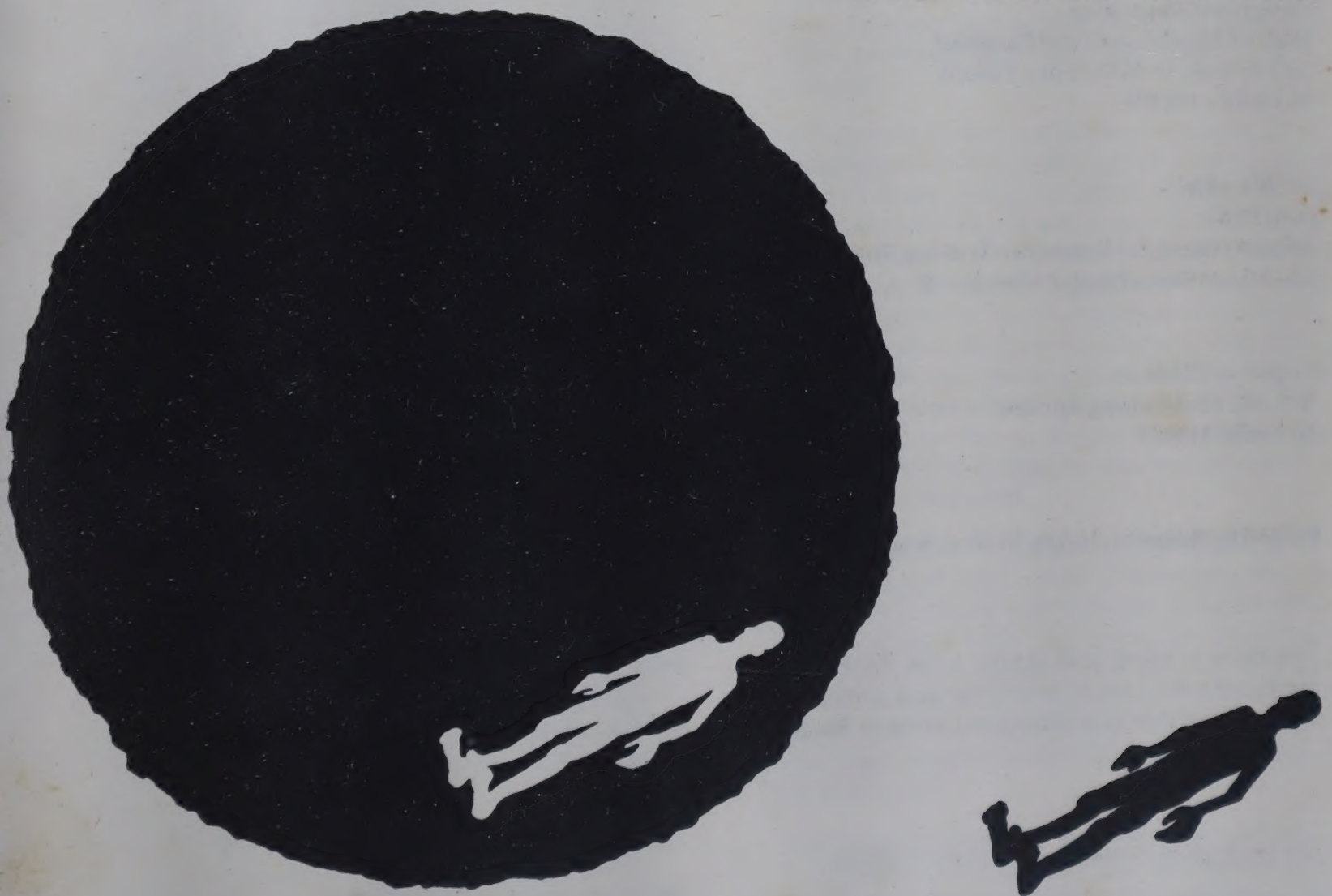
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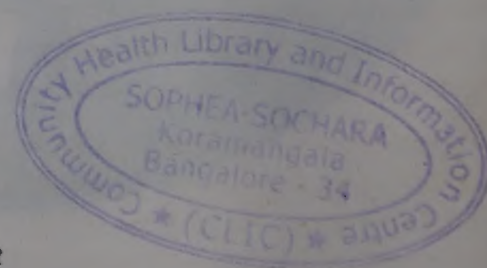
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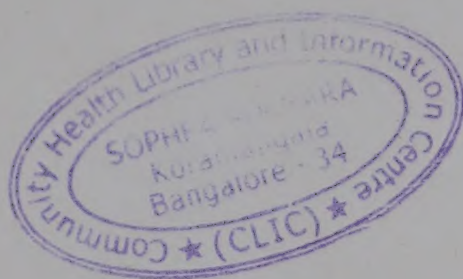
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# Preface



Throughout history, all human populations have lived with the threat of disease and sickness. Though every society evolved its own ways of dealing with this reality, it was only in the last two centuries that human beings could entertain visions of a disease free existence. The development and growth of modern medicine gave society potent tools to actively intervene in the disease process and it seemed just a matter of time before suffering and pain could be banished from human consciousness forever.

The initial euphoria generated by modern medicine has however given way to concern for several reasons and a serious debate has arisen in the last 10 to 15 years about the effectiveness of modern medicine and the need to find alternatives.

In India, the discussions have centered around the high cost of a Western oriented hospital based health care system, the inequitable distribution of health services, and the inappropriateness of medical education in dealing with the health problems of the majority. Most of the alternatives being tried out are therefore aimed at dealing with these problems. However, each of the alternatives tried out so far has not really succeeded in substantially improving the health situation in India because they do not take into account the exploitative nature of our society.

Our book argues that disease is a product of the way of life of the people which is shaped by the social, political and economic forces of the society. It is these very forces that determine the extent to which health programmes, no matter how innovative, will succeed or fail.

It is true that at present there are no alternate models of health care which adequately address the issues in-

involved. Such a model would have to evolve out of the day to day experience of both the health workers as well as the people for whom health services are intended.

The health services of our country rest on the work being done by middle level workers—nurses, auxilliary nurse midwives, and paramedicals. It is these workers who confront the social and economic reality of the people they work with. Yet it is these workers who are least involved in a critical examination of their work. Firstly, being in the lower rungs of the hierarchy of medical services, they are expected to follow orders and not really take part in decision making. Secondly even if they were to be included in the decision making process, their training does not prepare them to translate practical experiences into conceptual thought and vice versa.

It is because of these limitations that even sensitive and highly motivated middle level workers often feel frustrated. Scattered in terms of physical distance and often working in isolation these workers have nobody with whom they can clarify their thoughts or discuss their work in a meaningful way. We firmly believe that much could be achieved by these workers if they could be helped in developing a perspective regarding their work.

This book on rural health care intends to provide such a perspective. It has grown out of our experience of conducting several short-term and long-term training programmes with middle level health workers all over India. It looks at the day to day experiences of these workers, attempts to place these experiences within a perspective and offers some suggestions which need to be explored further.



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**With deep affection and respect, we dedicate this book to Simone Liegeois. Her vast experience in community health has formed the basis of many chapters in this book. Simone has also been a great source of strength and support, not only for us, but for numerous health workers all over India.**

*We thank the following friends for their support in writing this book :*

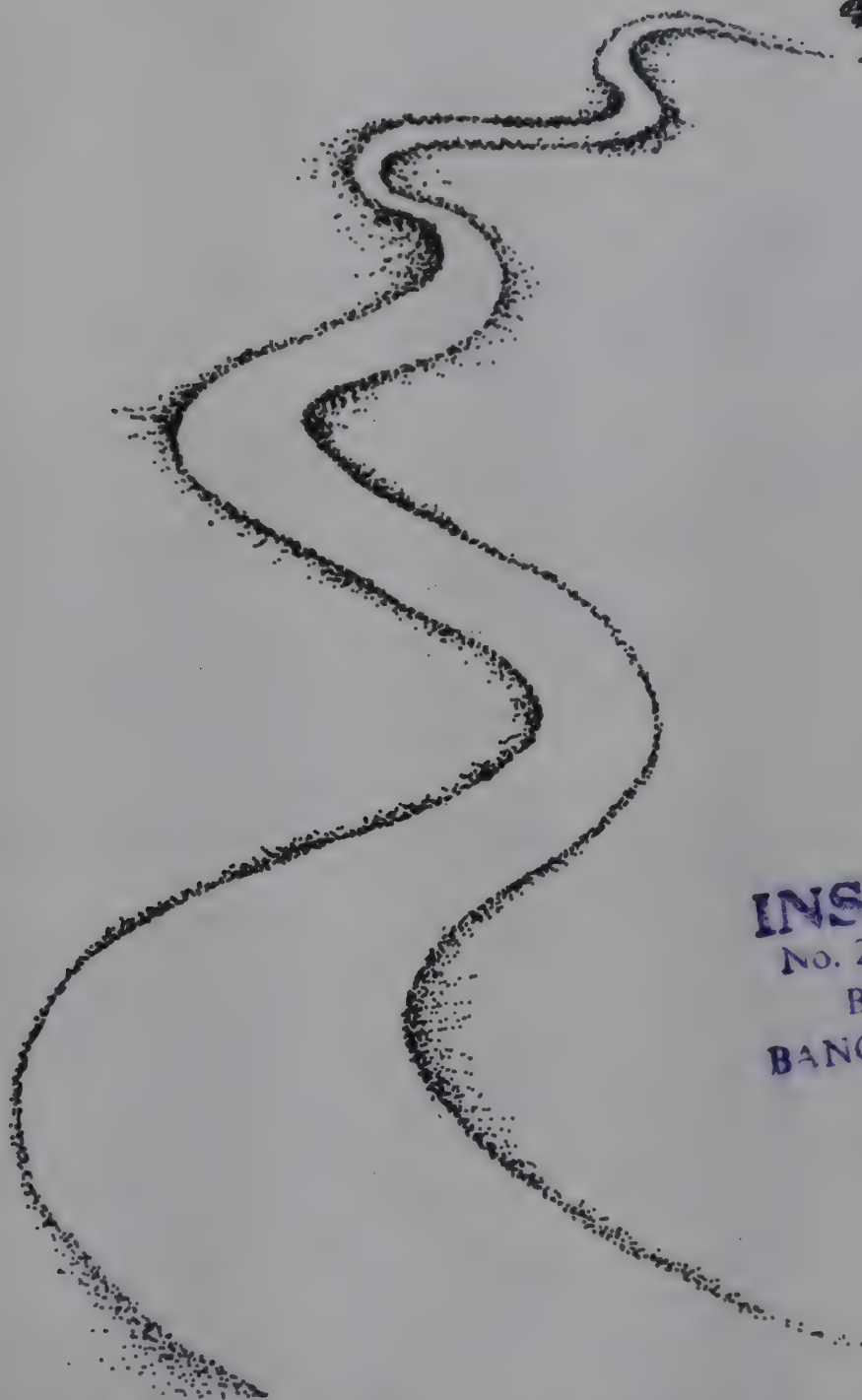
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# SECTION I: INTRODUCTION



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This section looks at some of the most common experiences of health workers working in rural areas. It begins with Radha, a health worker, who for her own reasons leaves her hospital to work in a rural dispensary. Totally unprepared for working in a village, either by her training or experience, Radha faces several problems which she is unable to understand. These problems also raise a number of questions in her mind which she cannot answer on her own.

Each chapter in this section begins by verbalizing Radha's thoughts and perceptions in relation to an incident that takes place in the course of her work. The chapter then goes on to discuss the question raised by her in the context of people's lives in rural areas.



## Radha's Story

It was a great day for Radha. Dressed in a spotless uniform and starched cap, she looked around the hospital ward with a feeling of excitement and challenge. She had reason to feel proud. It was only six months since she had qualified as a nurse and today the matron had asked her to be sister-in-charge of the ward for two weeks! The ward sister was to go on leave and the matron had been sufficiently pleased with Radha's work to give her this responsibility.

Radha was an efficient worker but people liked her best for her sensitivity to the feelings of others. Radha got to know something about each of her patients during their stay in hospital, and usually knew some of their immediate concerns. It was through such confidences that she learnt about the difficulties some patients had in coming to the hospital. She came to understand that some people left against medical advice because there was no one to look after the children at home. Over a period of time she even felt sympathetic towards the women who cursed their husbands as they delivered their children.

Radha was just back from leave. She had gone home because her mother was seriously ill. She was still worried about her and found her thoughts often returning to her parents. One afternoon when Radha was on duty, there was an emergency. A woman had been brought to the hospital with tetanus after childbirth. Within half an hour the poor woman died. Everyone present, including the doctor, exclaimed at the needless death. If only she had taken her tetanus injections. Even if she had reached earlier, she may have survived. Hearing this, the woman's brother explained that they had wanted to come earlier but the bus conductor had refused to allow such a sick person to enter the bus. They had then done their best to arrange a bullock cart and come as early as possible. All the same, they

had been too late. As the relatives left the hospital, Radha thought of their sad journey home.

The incident remained in Radha's mind and over the following weeks she became more conscious of remarks such as "The patient came too late", "Why did you wait for so many days before coming?", "You should have come earlier". Of course for Radha these words had an added meaning. She was so far away from home. What if something happened to her mother? Would she be too late? She could just hear her father saying "Why did you wait for so many days before coming?"

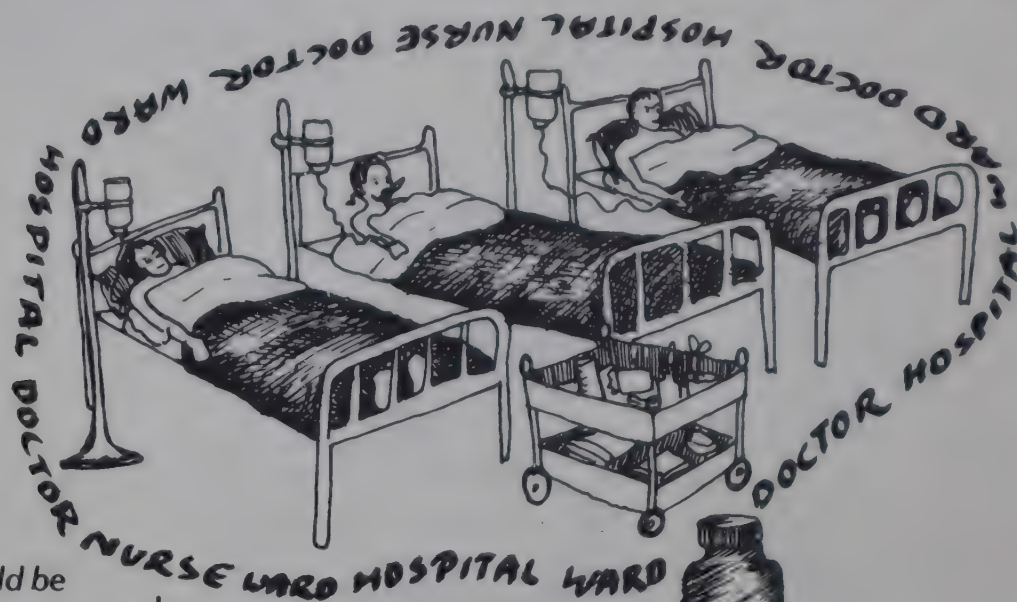
The month passed slowly and Radha felt more and more worried. Her mother was still very ill. What was the use of being a nurse if she couldn't help her own parents when they were sick? But it wasn't that simple. Radha sent a large part of her salary home. The family needed the money, specially now, for her mother. Would she be able to earn enough if she gave up her job at the hospital?

Radha thought about this often, but could find no solution. One day she decided to discuss her problem with the matron. The matron felt it would be a pity if Radha left the hospital where she was doing so well. However, if Radha wanted to leave, she said she'd write to some friends about a job for Radha near her home.

About two months later, as if by chance, Radha came to know about a job near her home. A charitable organisation wanted a qualified nurse to work in a rural dispensary. The organisation was running several such dispensaries and two hospitals in the district.

Radha would have preferred a hospital job, but applied for the post anyway. She knew she had no experience of such work and was quite scared. Her only



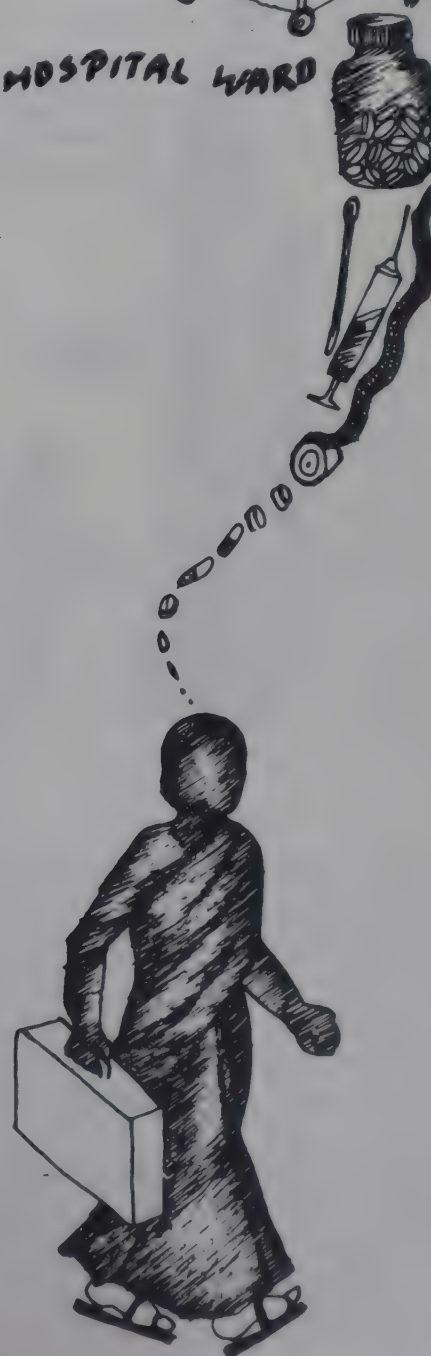


consolation was that if she got the job she would be near enough to her parents to visit them often. Later, she could try and shift to a hospital.

Radha got the job and was a bit surprised at how easy it had all been. Her employers knew it was difficult to get good nurses to work in rural areas and were therefore considerate about Radha's needs. They agreed to pay her the same salary that she was getting at the hospital and even allowed her to go home twice a month over the weekend. So Radha found herself in charge of a rural dispensary!

The dispensary was in a village 11 km from the nearest small town. In this village, the charitable organisation had set up a dispensary and a balwadi. They were also starting some programmes with the farmers. Unlike the balwadi teacher, who came in to work every day from another village, Radha was expected to live in the dispensary. Chamelibai, an experienced but unqualified woman from the village was to help Radha in her work and also live with her. A part-time doctor came to the dispensary twice a week. At other times if a doctor was needed, Radha was to refer patients to the primary health centre, 11 km away or to the district hospital 35 km away.

Mr. Ramesh Chander, the co-ordinator of the village work, introduced Radha to the Sarpanch of the village and later explained her work to her. To begin with, she was to work only in the dispensary. For some time, the doctor had agreed to come more often so that he could guide Radha in diagnosing and treating simple illnesses. It would give her time to adjust. Later, along with Chamelibai, she would have to make village visits as well.







one

Radha was making a shopping list. She had already written down all that she needed to buy for her personal use and was now making a list of medicines that needed to be bought. The doctor would be coming today and in the afternoon he would show her where to buy the medicines. It would be Radha's second visit to the town in the three months she had been there.

Three months had gone by and Radha had gradually settled down in her work. She remembered how scared she had been of treating patients on her own. The doctor had helped her to some extent but she had to overcome most of her fears on her own.

Her thoughts were interrupted as a woman came into the dispensary with her two year old son. She immediately noticed the sores on the boy's hands and feet. Scabies as usual! She examined the boy and found that he also had fever. Radha could not help being irritated with the mother. Then remembering what the doctor had told her, she turned to examine the mother as well. What she feared was true. The mother had a rash all over her hands. She had not even told her! Radha wondered if the mother too was going to wait till her rash turned into sores. **Why couldn't people understand that it was for their own good to get treated early?**



# 1 : Why don't people understand that it is for their own good to get treated early?



Health workers are often puzzled when they find that people do not seek early treatment even when health services are close by. To understand this fact, it is helpful to distinguish between the terms **disease** and **illness**. "Disease may be defined as the bio-physiological phenomena which manifest themselves as changes in and malfunctions of the human body" (Conrad and Kern). Normally changes occur in the body all the time. Change by itself does not constitute disease. For example, changes take place in the body while a child is growing but these changes do not mean that the child has a disease. Only when change results in the malfunctioning of the body, do we consider the person, in medical terms, to be having a disease.

Illness, on the other hand, is the experience of being sick. Vitamin A deficiency is a good example to illustrate this point. In the beginning stages of the disease, a person does not feel ill (experience illness) even though changes are taking place in the body. The eyes might become dry and the texture of the skin might change, which also alters the normal functioning of the body. In medical terms such people are diseased, though they may not consider themselves ill. The person will experience the disease as an illness only when she or he gets night blindness.

Leprosy is another example. The disease may first appear in the form of hypopigmented (light coloured) patches even though at this stage the person does not feel ill. The person will feel ill only when she or he experiences loss of sensation in some part of the body or develops a deformity.

On the other hand, a person can feel ill without having a disease. For example, certain beliefs or strong emotions can make people ill. A person bitten by a non-poisonous snake may show signs like sweating, palpi-

tations and may even die. A piece of shocking news may be the cause of a fainting attack in another person. Belief in the effects of evil spirits may result in a person going into a trance or frenzy, or even death. All these people are experiencing an illness.

Thus, people may feel ill in the absence of disease or people may have a disease without feeling ill.

Certain **cultural concepts** also influence people's perception of illness. For instance, a child with swelling might be viewed by the mother as healthy and 'fat' whereas a health worker might diagnose it as kwashiorkor (a disease caused by undernutrition). It is important for the health worker to be aware that her perception of terms like disease, illness and health may be very different from those of the people among whom she is working. People do not take an active decision to seek relief till they themselves experience illness.

The decision to seek relief in times of illness also depends on people's perception of the **severity of the illness**. Many minor diseases of the skin and of the digestive system are rarely brought to the notice of a health worker. These diseases are so common and so much a part of their lives that people do not consider them abnormal. People do experience them as illnesses but don't consider them severe enough to seek immediate treatment. The need for treatment may be felt only when the illness becomes severe enough to prevent normal activity. For instance, the health worker might stress the need for an early cure for tuberculosis, but people might wait till the disease incapacitates them enough before treatment becomes an obvious need.

The tolerance for pain is another factor in deciding when treatment should be sought. The tolerance for pain varies from individual to individual and between communities. For example, in most Indian communi-

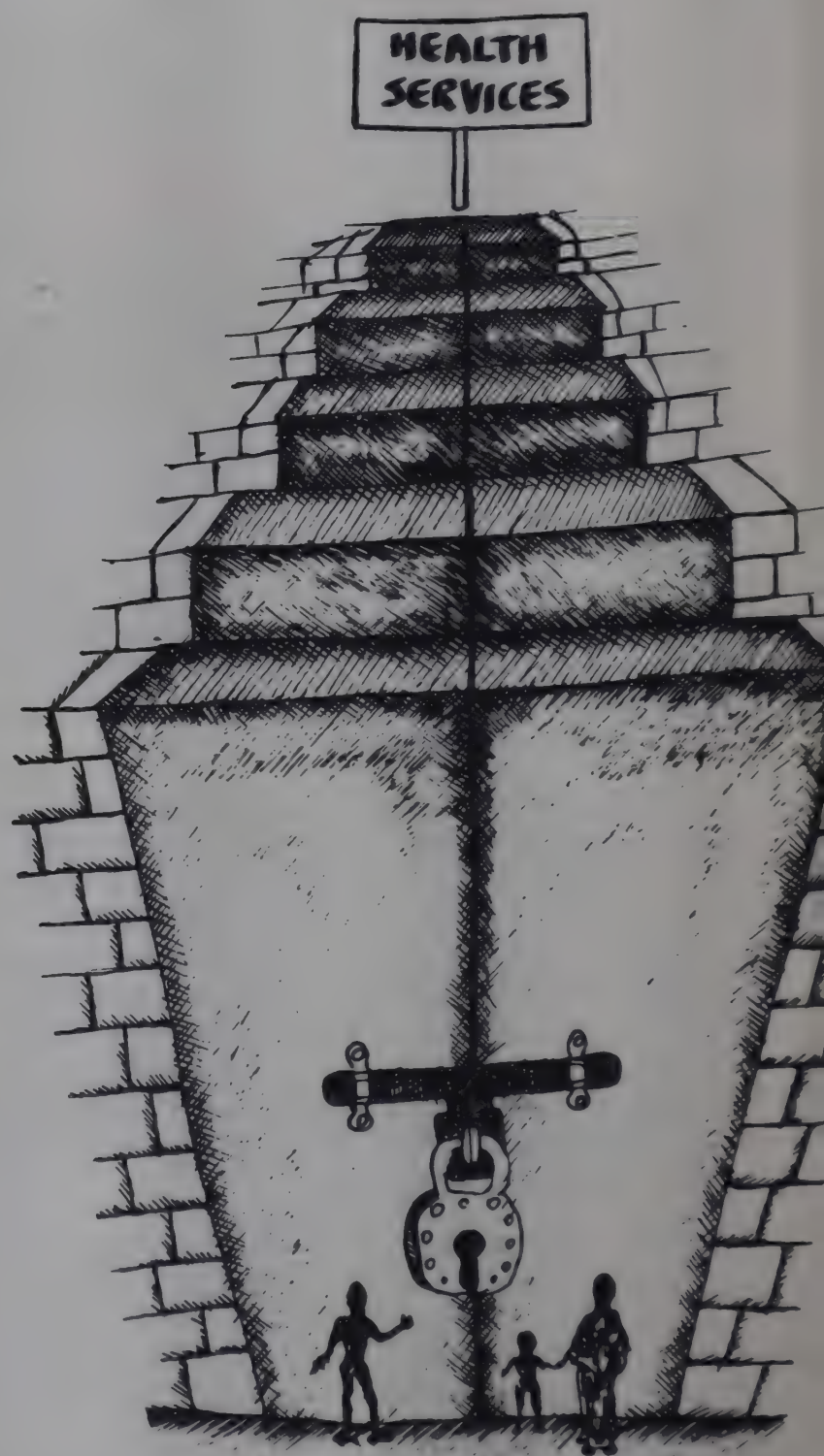


ties, the level of pain a man is culturally allowed to express is different from that allowed a woman. The traditional image of the woman in India is that she is able to bear an immense amount of pain especially during childbirth, without complaining. In keeping with this image, a woman is expected to tolerate pain and suffer patiently even when she is very sick, until the symptoms become so obvious that she needs urgent medical care.

This expectation of a woman to bear pain is also related to the fact that her life is valued much less than that of a man. It is a well known fact that in India, sickness in a male child is taken much more seriously and medical attention is sought promptly as compared to sickness in a female child. On the other hand, boys are often taught not to express pain for small hurts as they are 'men' and should be 'strong'. All of these factors go into the perception of the severity of the illness in the minds of people. This perception may be different from that of the health worker, as we have seen above.

Even when an illness becomes serious, a person may not seek medical help because of the **expense involved**. The most obvious expense is of course the cost of treatment i.e. medicines, service charges and diagnostic procedures. The actual cost to the person seeking treatment can however be much greater. It may mean a loss of the day's wages for the sick person as well as for the person accompanying him, and the cost of travel. Some may have to borrow money to meet these expenses. The interest on the loan charged by the money lender would get added to the eventual cost of treatment.

12 The decision to seek medical relief is thus influenced by several factors. In her area, a health worker may



find many more reasons than have been discussed so far. It is therefore important that she understand these different reasons before trying to deal with them.





**HOW STRANGE!**



*two*

Radha turned down the lamp and gratefully got into bed. It had been a tiring day. As usual many more patients came to the dispensary when the doctor made his visit. Then she had sat and finished the dispensary accounts which Mr. Ramesh Chander, the co-ordinator, had asked for.

Today of all days Chamelibai had gone off to attend a wedding and Radha had had to cook her own dinner. While she was cutting vegetables, a stray dog came into the kitchen and knocked down the bottle of kerosene as she chased it away. It had really been a hard day!

Radha pushed aside her thoughts and settled down to sleep. Hardly had an hour passed when she was awakened by the sound of drums. They seemed louder then ever today. She shut the window to keep out the sound and tried to go back to sleep. But the

drums beat louder and louder. She knew by now that the drums would continue to beat for a long time. The local healer was at work tonight.

Just today a seriously ill child had been brought to the dispensary. He had been having fever and the parents had taken him to the local healer. The local healer had, among other things, applied a hot iron to the child's abdomen. It took the parents a full week to finally bring the child to the dispensary. By now, the child had high fever and the burn on his abdomen had become infected.

Chamelibai and the doctor had also told Radha stories about such local "quacks". Even after such experiences, why did people continue to have so much faith in these healers?



## 2 : Why do people have faith in local healers ?

In our country 80% of the deliveries are still conducted by dais (traditional birth attendants) and 25-40% of the medical needs in rural areas are met by the indigenous healers like the Bhopa, Badwa, Gunia, Bonesetters, dais, etc. The extent to which these healers are used differs greatly from area to area and even from village to village as can be seen from the table. The very fact that indigenous healers are used to this extent is evidence that they fulfil a definite need. It is important to identify this need, to understand why people continue to have faith in indigenous healers.

**A system of healing develops as a way of coping with disease.** In societies where the curative powers were not very well developed, the best strategy to cope with disease was to prevent its occurrence. This meant that people needed to understand why disease occurred in the first place. People did this through observation and inference. For instance, it was observed that whenever a group of people or a tribe shifted to a new place, or came in contact with a different tribe, illness increased. From this they inferred that moving into a new place or meeting new people results in illness.

Similarly, it was observed that eating the meat of certain animals at particular times of the year led to illness. The tribes dealt with these problems by setting strict social restrictions. For example, there were restrictions placed on mobility, intermingling of tribes, hunting, food habits etc. When they found that following these restrictions strictly helped in reducing illness, these restrictions got reinforced. All this however, still did not explain why disease should occur in the first place. The only answer that could be found was that unseen forces, beyond the control of human beings were at work.

This explanation seemed reasonable since there were many other natural calamities like floods, drought,

thunder, lightning which also human beings could not control. These too had been explained as being caused by supernatural forces.

Thus, along with social restrictions the belief that sickness is caused by supernatural forces became part of the health system. It was the power of this belief that further ensured the unquestioned acceptance and adherence to social restrictions.

The role of the healer in this situation was first to find out which supernatural force (a dead ancestor, a god, an evil spirit etc.) had been displeased; what the sick person had done to cause the displeasure, and what would be needed to satisfy the offended spirit. He also had to give something to relieve the symptoms of the illness. In the healing of illness therefore, ceremonies, rituals, punishment and sacrifice came to be as much a part of medical procedure as was the dispensing of herbs, potions and other remedies. Illness was seen as a punishment for falling out of harmony with the universe. The healer's role was to identify why this harmony had been disturbed and to restore it.

**In most rural areas in India, an illness is still seen as the result of falling out of harmony with the universe.**

Health is seen as a reward; sickness as punishment for wrong-doing. Breaking a food taboo, neglecting a dead ancestor, annoying a spirit, not performing a religious ceremony, casting an evil eye and harming a neighbour are among the several factors believed to be the cause of illness. **The local healer operating within this same set of beliefs therefore provides a satisfying answer to the question of why disease has occurred.**

Modern medicine, on the other hand, explains disease as being caused by germs, a belief which is alien to a majority of the people in India. The set of beliefs in-



corporated within the modern system of medicine developed at a time when great advances were being made through the use of modern science and technology. People in Western countries, where modern medicine originally developed, gradually began to see the improvement that technology brought about in their living conditions. Since modern medicine was also based upon a scientific understanding of disease and used technology in diagnosis and treatment, people slowly came to believe in this system of medicine. This belief got strengthened because the rise of modern medicine was accompanied by a sharp decline in the death rate in these countries.

In India however, the economic and social condition of a majority of the people has not really changed. The majority still do not have control over the various events affecting their lives, including sickness. **The set of beliefs which form the basis of modern medicine are therefore not easily accepted by them.** People do recognize that modern medicine has powerful remedies which provide dramatic relief but they see these remedies as some kind of 'magic' rather than the results of scientific understanding. Further, they do not find a suitable explanation for why disease occurs in one person and not in another from this system of medicine.

In times of sickness, then, these people have to decide whom they will go to — indigenous healers with a set of beliefs which are acceptable to them but with limited curative powers, or doctors trained in modern medicine with a set of beliefs which are not in keeping with their own belief system, but with tremendous curative powers. Faced with this choice, people tend to categorise diseases into two broad categories: those more likely to be cured by doctors trained in modern





medicine and those more likely to respond to the practices of indigenous healers. For illnesses believed to be caused by 'bad' air, emotional disturbance, or ritual uncleanness, the traditional healer is the only choice. The remedies of modern medicine are seen to be ineffective or even harmful because the health personnel trained in modern medicine do not believe or understand these illnesses. For chronic or minor illnesses, people usually go to the local healer. In case of emergencies where the local healer proves ineffective, treatment is sought from the modern system of medicine.

These distinctions are not very rigid. The course of an illness and the outcome of previous treatment for the same illness may make a person shift from one kind of healer to another. The modern system of medicine is used mainly because of its power to dramatically relieve symptoms. It is not unusual to find people utilizing the modern system of medicine for its curative power without changing their ideas about the causes of disease. They may still go to an indigenous healer to seek relief from the 'cause'. For people, it is ultimately not a question of using either the local healer or the doctor because of rigid tradition. It is more a question **of utilizing what they consider the most effective and satisfying parts of the available systems of healing.**

Procedures adopted as a part of treatment are important in providing a sense of satisfaction. In the approach to the patient the traditional healer has an advantage. He has a more leisurely manner which allows him to devote a great deal of time to each patient, listen to them, and give the psychological satisfaction wanted. The traditional healer works in simple familiar surroundings and the patient does not feel threatened. Medical personnel on the other hand, often fail to



## The use of different kinds of healers by patients

	MADHYA PRADESH		PUNJAB	TAMIL NADU
	Bhitarwar block (1978-79)	Banda block (1978-79)	26 villages in Ludhiana district (1973-74)	One village in Chingleput district (1969-70)
Consulted modern medical practitioner 	51.6	36.1	16.6	52
Consulted traditional healer 	11.2	4.8	24.0	26
Not consulted anyone* 	37.2	59.1	59.4	6
Combination of traditional healer and modern medical practitioner 	nil	nil	nil	16

\* It is highly likely that the people surveyed in Madhya Pradesh and Punjab did not give complete information as often happens in large surveys.





give the understanding and reassurance hoped for. The personnel of the over crowded, understaffed health centre, neither have the time nor the energy to create a personal relationship with the patient. In the training of the medical personnel, the need to build up a personal relationship with the patient is not given enough emphasis.

This can be seen by taking the example of a delivery conducted by a dai at home and that conducted in a hospital by health personnel trained in modern medicine. The dai has a similar belief system as the pregnant woman and her family. The surroundings and the materials which are kept in readiness for the delivery are familiar. The position for delivery and the interventions made by the dai are practices the people are accustomed to and have seen or experienced before. Cultural practices are given equal importance. The ritual disposal of the placenta, the purification of the room in which the delivery has taken place, are given as much importance as the delivery itself.

In a hospital situation, the strange surroundings, the gleaming instruments, the position for delivery, the impersonal attitude of the medical personnel and the interventions made by them are all relatively strange. This strangeness creates a sense of uneasiness and fear. Traditional cultural practices obviously cannot be carried out in such a place. Further, the health person-

nel do not believe in these practices and see no need for them to be carried out. Neither are they sensitive to the fact that these practices are important to the patient and her relatives.

This attitude and the non-performance of the rituals are seen by the pregnant woman and her family as a direct offence against the supernatural forces. The fear that the offended spirits will punish the family is added to the already existing fear of the unnatural surroundings. Therefore when a delivery is to be conducted, it seems logical for the majority of the people to utilize a system which is capable of satisfying all their needs. Should the delivery become complicated, people are willing to sacrifice cultural practices for the time being in order to save the life of the person. The modern system of medicine with its powerful medicines and techniques is seen as having the capacity to do this. The supernatural powers which would have been displeased by this decision could later be satisfied by performing appropriate ceremonies.

To summarize, where more than one system of healing exists simultaneously, people's understanding of illness and its causes determines the selection of a system of healing. The continued use of this system is dependent upon how effective it is in curing the illness and how satisfying it is as an experience. Ultimately, people may end up using what they see as the most effective part of the different systems.



three

It was seven months since Radha had joined the dispensary. On his monthly round, the co-ordinator, Mr. Chander suggested that Radha and Chamelibai should start making village visits. Mr. Chander said that they were planning to start a few co-operatives in nearby villages and felt it would be a good idea to simultaneously have some health programme. He told Radha that they had applied for funds and were hoping to get some vehicles, but in the meantime, Radha could visit villages which were within walking distance from the dispensary. He said he would introduce her to the leaders in these villages and Chamelibai could help her in getting to know the people. So it was settled. Radha was to keep the dispensary open from 9 a.m. to 1 p.m. and later in the evening, she and Chamelibai were to make village visits. During these visits she was to treat patients and also give health education.

In the following days, it became a common sight to find Radha and Chamelibai visiting people in their homes. At first, it shocked Radha to find that people slept in the same room with animals. She found small children playing in the dirt and, as children will, putting the same dirty hands into their mouths. The grownups didn't even stop them. She discovered that some people even drank water from the dirty nallah she had so often passed.

One day Radha was about to close the dispensary when Chamelibai came rushing into the room. She looked agitated and told Radha that a man was being brought to the dispensary in a bullock cart. He had been gored by a bull and had a deep wound on his thigh. Radha barely had time to let this information sink in when the patient himself was brought in. This was the first serious patient that Radha had to deal with on her own. Nervously, she untied the dirty cloth tied around the man's thigh and examined the wound. The man was bleeding profusely and Radha knew he

would require stitches. She told the men who had accompanied him to get ready to take the patient to the primary health centre (PHC) and in the meantime cleaned and dressed the wound. Then she also got into the cart and urged them to hurry to the PHC.

The journey seemed never ending and Radha kept looking at the hurt man anxiously. She had no experience with such injuries and her only thought was to reach the doctor. When they did get there, Radha rushed out to find him. She was amazed when a man told her that the doctor was at home resting. He would be back in another half hour and she'd have to wait. The patient had been brought in by then and seeing the wounded man, together with Radha's persuasion, the man agreed to go and call the doctor.

Radha's next surprise came when she saw the doctor preparing to stitch the wound. He had no suture material and the autoclave was out of order. Quite casually, he stitched the man's wound with unsterilized thread! But what seemed really unbelievable to her was that the PHC had no anti-tetanus serum. The doctor asked the patient to buy it independently and get it injected by a private practitioner.

The people thanked the doctor and got ready to go home. They didn't seem to think anything was wrong in the way they had been treated. Radha went back with them but was hardly aware of the long journey. She was very disturbed by the whole incident. It had never occurred to her that people in the villages could have so many problems in getting medical help. She thought of her hospital in the city. Simple things like suture material, sterilized dressings, tetanus injections, were never a problem there. She kept thinking with horror of what would have happened if the case had been really serious. **Why didn't people in rural areas have better access to medical facilities?**



### 3 : Why don't people in rural areas have access to health services?

There is a general impression that health facilities are inadequate in rural areas. This impression is created because of the common experience of overcrowded hospitals, understaffed PHC's or inadequately stocked subcentres. In reality there is an imbalance in every aspect of health care services and facilities in the country. We need to understand the extent of the problem before taking up the question of why such a situation exists.

We can assess the adequacy or inadequacy of our health services by seeing how far the needs of the people are being met. If one looks at the disease pattern in the villages (since 76.69% of the population resides there), one finds that many of the diseases are either such that the person recovers from them in a few days and for which medicines would be of little or no use, or that the illnesses are such as could be easily diagnosed and treated by a person with basic medical training, i.e. a village health worker, auxiliary nurse midwife or a nurse. There are however, people suffering from diseases that need to be referred to a doctor and for which hospital facilities are required. It has been estimated that only about 10% to 20% of the patients need to be referred in such a manner.

These different needs of the people can be met only if there are enough health institutions within a reasonable distance from people's homes; these institutions are adequately staffed by appropriately trained personnel and adequate money is available to purchase necessary medicines and equipment.

Let us look at each of the above aspects one by one.

#### Health institutions

As previously stated the greatest need of people is for basic health services. To meet this need the govern-

ment has set up a number of primary health centres (PHC's) and subcentres in all parts of the country. A PHC is supposed to provide a combination of preventive and simple curative services and is staffed by 2 or 3 doctors and 20-30 paramedical workers. Each PHC has 8-10 subcentres attached to it and is staffed by an auxiliary nurse midwife (ANM). These institutions are linked to district hospitals which are supposed to provide referral services. Do we have enough of these institutions in the country?

#### PHC's and Subcentres

	PHC's	Subcentres
Total number in 1983	5,995 (approximately one PHC for 87,000 people)	65,643 (approximately one subcentre for 11,000 people)
Government target by 2,000 AD	One PHC for 30,000 people in plains and 20,000 people in tribal or hilly areas.	One subcentre for 5,000 people in plains and 3,000 people in tribal or hilly areas.

Source : Health Statistics of India, G.O.I. 1982 and 1983

The above table shows that the government wants to have more than three times the number of PHC's and twice the number of subcentres in the next twenty years. However, it is doubtful if even this increase in PHC's and subcentres will be adequate. According to a recent study, even motivated personnel at PHC's find themselves reaching only 10-15% of the population they are expected to cover. In such a situation, it seems





as if the government would need more than six times the number of PHC's that presently exist if the entire rural population is to have basic health facilities.

## Referral hospitals

It has been estimated that our country's needs for hospitalization can be met by having two beds for 1000 people. In 1982 we had one bed for 1438 people, which in itself is inadequate but this inadequacy is much greater in rural areas. There are also large state wise differences, as can be seen from the following table:

	In the State	In Urban areas	In rural areas
Population served per bed			
Kerala	591	222	956
Maharashtra	899	337	8,789
Uttar Pradesh	2,433	463	35,107
Orissa	2,294	341	9,843
Bihar	3,097	397	1,03,898
ALL INDIA	1,438	387	8,141

Source : Compiled from **Census of India, 1981, Series I**, and **Health Statistics of India, G.O.I., 1982**

The above table shows that compared to urban areas people in rural areas have very poor chances of using hospital beds. Further a person from a rural area in U.P. or Bihar has poorer chances of doing so.

Taken together, from the above discussion it is clear that there is a shortage of all health institutions in rural areas.

## Trained staff

If we keep in mind the fact that the greatest need in the country is for basic health services, it would follow that appropriately trained medical staff would consist of ANMs, nurses and Lady Health Visitors. Since fewer people need specialized care such as is given by doctors and specialists it is natural to assume that we need fewer of them.

The number of health personnel available at present in each of these categories is however, directly contradictory to the need. In 1983, we had:

ANM's	80,012
Nurses	1,62,875
Doctors	2,68,712

1981	1 doctor for 2550 people	1 nurse for 4442 people	1 ANM for 9333 people
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Source : Compiled from **Health Statistics of India, 1983, G.O.I.**, and information given by **Indian Nursing Council, New Delhi**.

The above figures become all the more significant when we consider the well known fact that 70-80% of doctors and 90% of the nurses are in urban areas while 80% of the ANM's work in rural areas.





In 1946, a Committee set up to plan the development of health services in India (Bhore Committee) had recommended that by 1971, the country should aim to have one nurse for every 500 people. According to the recommendations of this Committee, in the next 30-40 years (i.e. by the 1980's) our country should have trained:

Doctors	2,33,650
Nurses	6,80,000
Midwives	1,12,500

According to the above recommendations and recent WHO (World Health Organisation) estimates, we clearly have a surplus of doctors while there is a tremendous shortfall in the number of nurses. In spite of this, our country continues to train more doctors than nurses.

ANM's trained per year	5,572
Nurses trained per year	8,144
Doctors trained per year	12,170

(The above figures are for 1981-82).

According to a recent estimate it has been pointed out that even if the government wants to achieve its short term targets of providing health coverage for the whole country, it would need to train on an average 15,321 ANM's per year between 1981 and 1985. Considering that the number of ANM's being trained at present is a mere 5,572, it seems impossible to bring about an increase of 275% in such a short period of time.

To sum up, if people in rural areas are to be provided with basic health services, there needs to be a sufficient number of ANM's and doctors working in these areas. From what we have seen, there is a clear shortage of

ANM's in the country. On the other hand, there are enough doctors but a majority of them are not working in rural areas.

## Money available for medicines and equipment

The money available for medicines and equipment comes from the money set aside for health. In India, the amount allocated in the budget for health was low to begin with. This has been reduced even further since the first five year plan period (1951-56). When the health budget is reduced, expenses on certain items necessarily have to be reduced. Since it is not possible to lower salaries, reduction usually takes place on items such as medicines, equipment, vehicles, construction etc.

Further the amount spent in rural areas decreases much more than the amount spent in urban areas. This fact is supported by the 'Health for All' report which observes that most of the expenditure on health takes place in urban areas and the beneficiaries are the top 20-30% of society.

Similarly, a Committee appointed by the Government of Maharashtra to study the health services in the State, reported that, out of the total health expenditure of Rs.156 million by the State Government, 80% was spent on 3 cities (Bombay, Pune and Nagpur), 6.2% was spent on district towns, 4.5% on the villages and 0.5% on the tribal areas. Per capita per year health expenditure by the Government in Bombay was Rs. 14.60, in Pune Rs. 12.17, in Nagpur Rs. 8.09 and that in the villages a mere 13 paise! Though these figures are only for Maharashtra they indicate the existing situation in other states also.



The budget of a PHC for medicines varies from centre to centre. According to the Minimum Needs Programme of the government, in the fifth five year plan (1974-1979) a standard of Rs. 12,000 per year was fixed for each PHC, while Rs. 2000 was fixed for each sub-centre for the purchase of medicines. Since a PHC together with its subcentres is at present serving the needs of a population of about 100,000 this means that a PHC can provide medicines worth only 28 paise to each person per year. Even one course of antibiotics would cost much more. Quite obviously, there is an insufficient amount of money set aside for providing medicines and equipment in rural areas.

So far we have seen that our health facilities are inadequate in terms of institutions, personnel and medicines. Limited resources in the country are usually pointed out as the cause for this inadequacy. **However it is more than clear that even the available resources are not being used to meet the needs of the majority.** It is with this knowledge that we need to understand why such a situation exists.

Before Independence, the British Government, had set up a Committee under the chairmanship of Dr. Joseph Bhore to study the health needs of the country and suggest ways of meeting them. This Committee in its report dated 1946, recommended to the Government that :

- No individual should fail to secure adequate medical care because of the inability to pay for it.
- More stress should be laid on rural areas since the economy rests on the agricultural populations.
- Health services should be as close to the people as possible.

- Greater emphasis should be placed on training basic level workers, more of whom are required than doctors.

In making these recommendations, the financial constraints were constantly kept in mind by the Committee.

When the first five year plan was drafted, immediately after Independence in 1947, the government therefore already had detailed information on the basis of which to formulate their plans. Yet right from the beginning, the plans that have actually been formulated have often contradicted the stated goals.

One of the reasons for this was that our planners were greatly influenced by **western models of health care**. These models relied heavily on high cost, hospital based, curative services provided by doctors using elaborate diagnostic aids and equipment. Since it was believed that only doctors were capable of diagnosing and treating diseases, training of this category of health workers became one of the first priorities. Nurses and paramedical workers were considered less important. Therefore less attention was given to the training of these workers.

For doctors to be trained in large numbers there was the need to build big teaching hospitals which could offer training in all fields of medicine and which would get enough patients. Since a lot of money would be spent in setting up these hospitals, it was felt that these hospitals should be set up in the thickly populated urban areas where a large number of people would be able to benefit from these services. Adopting the western models of health care therefore made it necessary to spend large amounts of money in urban areas.





Once a few hospitals were set up in urban areas, a **need was created** for using them. People previously content to get their medical needs met in dispensaries and by family doctors and general practitioners now wanted the attention of specialists for even minor ailments. As more and more people started using hospitals a further need was created to build more of these institutions in urban areas.

**Doctors**, together with the **drug and equipment industries** also played a role in pressurising the government to set up hospitals with sophisticated and expensive equipment. The curative aspect of modern medicine was developing rapidly in Western countries and Indian doctors wanted to keep up with all these new developments. The manufacturers of drugs and equipment on their part persuaded doctors to use newer and newer products. Both these factors led to a constant upgrading of hospital facilities. As a result, large sums of money kept getting diverted into providing hospital facilities in urban areas.

In the meantime doctors also began to view the practice of medicine as a money making business. Since **private practice** was not banned, it was possible for them to sell their knowledge and skills to the patient on terms set by themselves. To justify their high fees these doctors needed to demonstrate their effectiveness by using elaborate diagnostic procedures and strong medicines. This naturally led to an increase in the cost of medical care which only the richer sections of the population could afford. Since most rich people

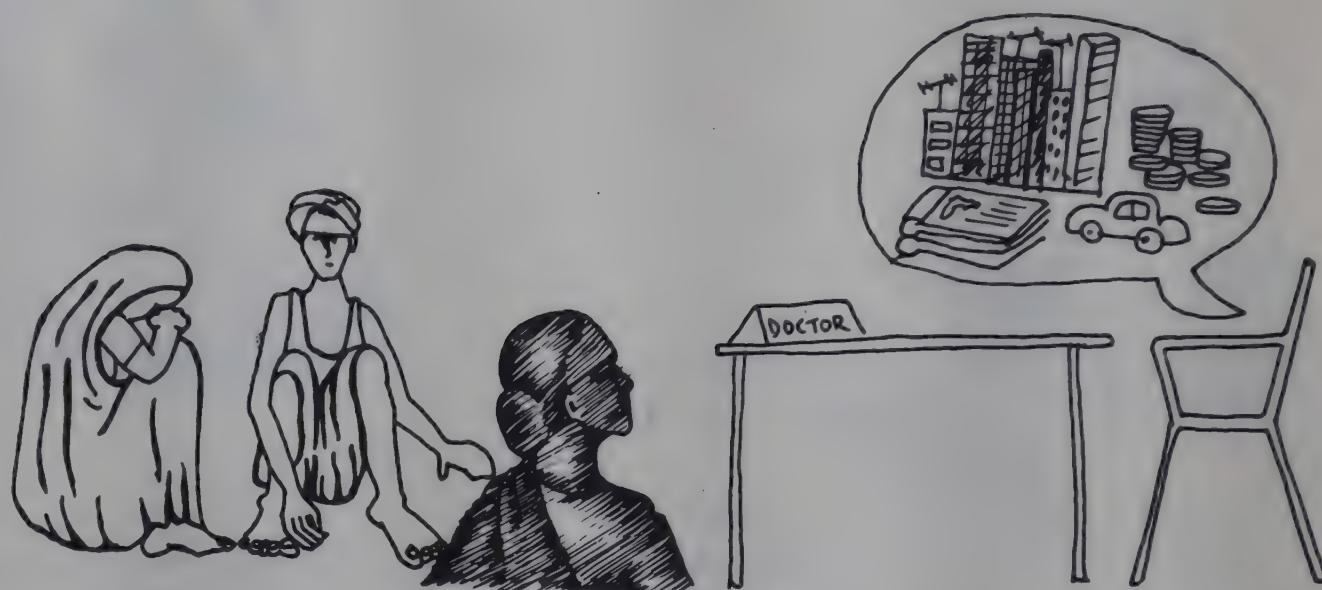
were in urban areas, the doctors too wanted to practice in these areas only.

While all this was taking place in the urban areas, PHC's and subcentres were also being set up side by side in rural areas, but this process did not take place at the same rate as that of hospitals in urban areas. Though the Bhore Committee had recommended that the needs of the rural areas must be met first, the Government did not consider this an important priority. Thus it was not that the planned number of PHC's and subcentres were first set up and the remaining money used to set up hospitals. Rather, money that remained after the hospitals were set up, was used for building up rural health services. This is not hard to understand as the top **administrators and planners** themselves came from the richer sections of the urban population and it was in their interest also that hospital facilities should be provided in urban areas first.

To conclude, it is true that health facilities are inadequate to some extent in the country as a whole. But this inadequacy is much greater in rural areas. This imbalance is not because of a lack of resources but because rural areas have been constantly neglected even though a large majority of the people live there. The adoption of the western model of health care together with the interests of various powerful groups in society is responsible for the severe imbalance that exists in our health services. *For a more detailed discussion on the effect of the various powerful groups in shaping the health system see section II*



four



In the last few weeks Radha's life had fallen into a pattern. She would see patients in the dispensary in the morning, then rest for a while before going to the village with Chamelibai.

She was getting used to the ways of the village people, even if she didn't understand many things. She would have liked to ask a thousand questions but felt she wasn't close enough to anyone to talk about them. For instance, why did people grind grain every day? How did the women feel bathing in the nallah? What if men came while they were bathing? How could people send a child alone to graze the cattle?

The village women had also been curious about her. The first thing they wanted to know was why she wasn't married! It was difficult for her to answer that. She was also reluctant to explain why she was working in the village. She usually tried to end conversations on these subjects as fast as possible and switched back to work. She had been doing her best trying to explain the importance of preventing diseases.

There were times when she missed her friends and thought longingly of the many nights she had spent talking and laughing with other nurses in the hospital. These days she had no one to really talk to, except for her family, whom she visited regularly.

Radha had become quite friendly with Chamelibai.

24 She liked her, and enjoyed the way in which she told

stories. Chamelibai certainly could make things sound funny! She was a great help to Radha in the dispensary, during the village visits and in the housework. Still, Radha thought, she couldn't really open her heart to Chamelibai—at least not yet. She needed to know her better. Radha had tried making friends with the balwadi teacher, but they had little time to spend together. In the afternoons when Radha was free, the balwadi teacher was busy with her work.

The doctor was the only other person around with whom she could talk. But the doctor was usually kept busy when he came to the dispensary and he always seemed in a hurry to get back to his house. She had to admit, she had been somewhat scared of him in the beginning. Anyway, on the last visit he had said that he'd got a job in a nearby city and would be leaving soon. This news had not disturbed Radha too much. She felt the organisation would easily find another doctor to replace him. She remembered reading in the papers that many doctors were unemployed.

The days turned into weeks and then months and Radha became more and more concerned. It was alright to manage for some days without a doctor, but for so long? Suppose something happened to a patient, she'd have no one to ask. **She thought it really strange that not one doctor was willing to work in the area.**



## 4 : Why don't Doctors work in rural areas?



At present our country has the optimum doctor/population ratio as recommended by the WHO. In spite of this, there is a severe shortage of doctors in rural areas. This becomes startlingly clear when we see that on an average there is one doctor for 1,333 persons in urban areas while in rural areas there is one doctor for a population of 12,500.

This preference of doctors to work in urban areas is not something new. As far back as 1946, the Bhole Committee observed that there was a wide disparity in the doctor population ratio between urban and rural areas and among different regions in the country. At that time it was believed that this situation existed because there were very few doctors on the whole. The Committee felt that the number of doctors in rural areas could be increased by firstly, training many more doctors in the country and secondly, by offering doctors government jobs in rural areas.

Unfortunately twentyfive years later (that is by the early 1970's) the situation remained much the same. During these years there had been a tremendous increase in the number of medical colleges and consequently the number of trained doctors. But still several government posts in rural areas remained unfilled. For instance in 1972, there were a total of 5192 PHC's in rural areas and the Government had sanctioned 2-3 posts for doctors in each PHC. However, only 2951 of these PHC's were functioning with 2 doctors. 2101 of the PHC's had only one doctor and 140 had no doctor at all. At this time the doctor population ratio for the country as a whole was 1 doctor for 4200 persons and it was reported that big cities such as Bombay, Delhi and Calcutta had one doctor for every 500 persons. Thus an increase in the number of doctors or an increase in government jobs in rural areas did not help to change the preference of

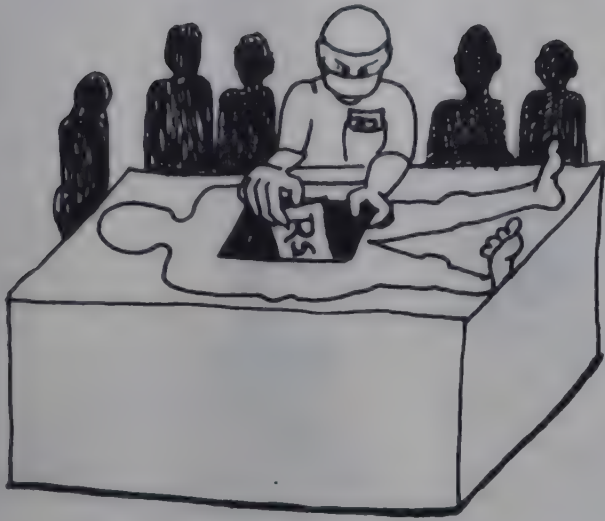
doctors for working in urban areas. In fact, as is well known the 1960's and 1970's were the years during which doctors were going abroad in large numbers.

The real reasons for the unwillingness of doctors to work in rural areas were and are very different. One of the factors responsible for their wanting to stay in urban areas is their **social background**. A majority of the doctors come from well-to-do middle class or upper class families, which can afford the expense of giving their children medical education. Even though a large proportion of the expense involved in medical education is taken care of by the government, students still have to spend a considerable amount on tuition fees, hostel fees, books and sometimes even capitation fees. Further, only financially well off families can afford to have a non-earning member in the family for 23-24 years, the time that it takes to become a doctor. This is the reason why people from poorer families are unable to acquire medical education.

A study conducted between 1963-66 showed that 60% of the interns (medical students completing their education) came from families in which the father had also received a college education. Also, most of these fathers were employed in government service, in business or as doctors. Students coming from such families naturally prefer to stay in urban areas. Most of them are used to city life and automatically reject the idea of working in a rural area with poor housing facilities, poor educational facilities for their children and no social life. Moreover most people from such families have a feeling of superiority and often have a sense of indifference or distrust towards the poor.

Another reason is related to the middle class **values** of success. To these families, success in medicine means getting a job in a big hospital, doing research, acquiring





ing more and more degrees through specialization and making more and more money.

These values were clearly brought out in a study which stated that by order of preference, interns rate private practice and specialization in a particular field of medicine as their first choice for their future career. Private practice is seen as a good way of making money because in our country there are no restrictions, legal or otherwise, placed on doctors engaged in private practice. This allows them to charge their patients as much as they want. Thus when it comes to settling down after their education, doctors prefer to work in urban areas which provide opportunity for private practice as well as specialization.

For instance, in 1978, 41% of the doctors were employed in private practice, 25% in government service (mostly in urban areas) and 10.5% were employed abroad. Working in rural areas would provide no such opportunities. Nor do doctors consider it their duty to work for the people who have indirectly helped in their education through the payment of taxes to the government. In fact they (doctors) strongly opposed the recommendation that all doctors should work in rural areas for a given period of time, in recognition of the fact that the Government had spent so much on their education.

The extent to which a majority of doctors are motivated by their own **financial gain** becomes all the more clear when we consider that in recent years doctors are actually going on strike demanding government jobs even if these are in rural areas! This strange situation has arisen because doctors suddenly find themselves without jobs.

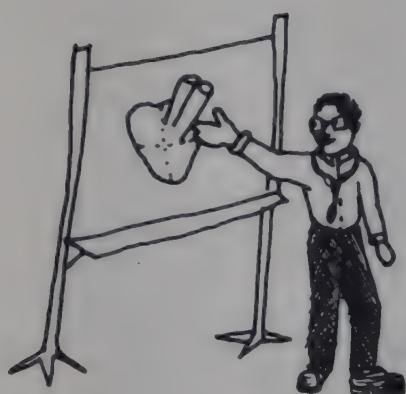
26 In 1982 there were as many as 18,499 doctors registered with the employment exchange. This has happened

because every year the country has been producing more than 10,000 doctors. The government jobs in urban areas are all filled. The competition in private practice has also increased so much that the richer private doctors have set up sophisticated nursing homes and clinics with the latest equipment. It has also become extremely difficult for so many doctors to practice in the same areas. In addition many foreign countries have stopped permitting Indian doctors to practice in their country. As a result a much smaller number of doctors can now go abroad. All this has combined to create a surplus of doctors in urban areas. Their only chance of getting employment is to now pressurise the government into creating more jobs for them, even if these are in rural areas.

Thus, it is basically the economic interest of doctors combined with their social values and background which makes them unwilling to work in rural areas. Even now, it is not out of choice but out of economic necessity that they are willing to work in rural areas.

**Medical education** also plays an important role in strengthening the above mentioned values. During medical college itself, students are often referred to as 'doctors' and given a lot of respect by patients and outsiders. Students soon come to believe that they know all that needs to be known about health. Because of this doctors find it unnecessary to spend time discussing health problems with the patient and in understanding the situation from which the patient comes. Their knowledge gives them a feeling of power which they exercise by talking down to patients and by demanding complete faith in their diagnosis and treatment. Treating patients as mere cases, looking down upon paramedicals and nurses (who generally come from a lower economic group as compared to doctors)





and glorifying specialization are other ways in which the sense of superiority of medical students is strengthened during medical college.

Medical students also observe senior doctors giving preferential treatment to private patients as compared to general patients. These very doctors often run a parallel private practice through which they accumulate large sums of money in addition to the salary they earn from the hospital. In doing so, senior doctors and teachers set an example of unethical practices to the students thereby encouraging such behaviour in them. Thus, the social background of students and the values inherent in medical education result in an alienation of medical students from the poor.

The technical content of medical education is also such that it helps in this process of alienation. The basic purpose of medical education is to provide doctors with knowledge and skills necessary to deal with the problems of illhealth in the country. In India however, by the time medical students complete their training, they know very little about the most prevalent diseases in the country. Instead most of the information they have received is related to diseases which are relatively uncommon in India.

For instance, an average doctor knows very little about tuberculosis or leprosy, which are two serious and major diseases in our country. Instead, a student is usually taught in great detail about heart disease, stroke or cancer. These diseases affect only a small section of our population, usually the wealthy population living in urban areas. This neglect of the more prevalent diseases probably comes out of a mistaken belief that common is the same as simple or easy and therefore not a subject worthy of deeper study. Perhaps it is also felt that a study of such common diseases is not intellectually

stimulating. There is really no basis for such attitudes as can be seen from the following two examples :

Leprosy is considered a 'common' disease, and a disease which has been known for a long time. Yet a vaccine for this disease has been developed only recently and it still needs to be tested. Further, it is still not clear how leprosy spreads or what are the various types of immune response that it produces in the body. A study of these immune responses could be as challenging as a study of the immune response in patients with cancer.

Similarly, although diarrhoea is such a 'common' disease, it is only recently that an effective treatment, i.e. oral rehydration therapy has been discovered. There is no reason to consider the discovery of this therapy less exciting than any other discovery in medicine.

All the same, medical education in India continuously places greater importance on the newer diseases such as heart disease and cancer. This is because, most of the text books used in India are written in foreign countries. Quite naturally, these books focus on the health problems which are common in these countries. As a result, Indian doctors are inadequately prepared to deal with the diseases which are more common and more important specially among the poor people in our country.

Perhaps the most important factor that alienates students from poor patients is the failure of medical education to give due emphasis to the economic, social, cultural and political aspects of illhealth. The overall focus of medical education is on training students to deal with disease after it has occurred. Little attention is given to a study of the social conditions in which disease originates. Nor is emphasis placed on a study of the conditions which are needed to create a disease free environment.



Further, diseases that are a result of social conditions such as poverty or deprivation are either ignored or 'treated' for the time being. For instance, the social conditions which are responsible for producing anaemia in women or malnutrition in children are largely ignored. Students are taught to treat these conditions for the time being with iron tablets or injections or vitamins. The fact that this treatment will not prevent the same person from developing the same disease again is simply ignored.

Medical students therefore lack an understanding of the way in which social factors interact to produce disease. Because of this, they see no value in finding out the answers to important questions such as why poor people are unable to eat well or why they are unable to seek early treatment for their illness. The only recognition that the medical profession has given to this important aspect is by adding a subject on Social and Preventive Medicine to the medical curriculum. Even then a study of this subject is often seen as necessary only to pass examinations. Very few students take this subject seriously or realise its importance in improving the health of the population, specially of the poor in rural and urban areas.

Medical education also does not prepare students to work in conditions that are usually found in most rural health centres. During college, students are taught to diagnose diseases using a variety of sophisticated diagnostic aids. Students fail to develop the skill of making a diagnosis through observation, history taking and physical examination. They thus find themselves severely handicapped in a situation where such aids are  
28 minimal or totally lacking.

Also, during clinical teachings, time is spent on giving information rather than in developing specific skills in individual students. An average doctor thus does not feel confident to handle common clinical, paediatric, surgical and obstetrical problems. This makes it necessary for them to join post-graduate courses even to acquire basic skills.

To sum up, so far we have seen that doctors do not want to work in rural areas because of their own social background, values and their economic interests. Medical education plays an important role in strengthening these values. Medical education also does not prepare doctors adequately to deal with the common diseases in our country. Nor does it provide doctors with skills of practicing medicine in conditions where sophisticated equipment is not present.

This brings us to an important point which is usually left out in discussing the question of doctors working in rural areas. It is usually taken for granted that it is desirable to have doctors working in rural areas and that if a sufficient number of them work there, the health needs of the rural population will be met. However, this is not necessarily the case. As we have just discussed, **medical education does not prepare doctors to work in rural areas.** Nor does it encourage students to develop an understanding of the problems of people from a poorer background. The contrast between the training medical students receive and the work which they are expected to do in rural areas comes out very clearly if we consider the job description prepared by the government for a doctor working in a PHC.



The job description of a PHC doctor has been taken from "Rural Health Sciences in India", G.O.I., 1965. For the Government, women doctors seem to be non-existent.

“ Such a doctor is expected to have sympathy, insight and understanding of the lives and aspirations of village people. He should be able to mix freely with the people (in villages) and develop their voices and aspirations.

He is supposed to work as a “scientist and social worker”, and direct all his efforts towards the prevention of disease, and become a therapist when prevention has broken down. He is expected to be the social physician who protects the people and guides them to a healthier and happier life.

He is expected to organise and run, maternal and child health, school health and family planning clinics with the assistance of nurses and para-medical workers. He is also expected to anticipate control measures for all communicable diseases, and if such a disease breaks out, to prevent it from spreading. In addition, he is expected to start and supervise environmental sanitation programmes with the help of paramedical workers.

He is expected to work with the health officials in the district, staff in schools, voluntary agencies and panchayats so as to promote health education. He is also expected to encourage the formation of village health committees.

In addition to all this he is expected to supervise and guide the work of 20-30 staff members of the PHC and prepare several health records which are to be submitted to the district health authorities.

”



It is more than obvious that doctors will be unable to do the work expected of them in PHC's. Their whole attitude, knowledge and skills are completely different and their education does not prepare them to undertake any of these tasks. Thus, the very factors which make doctors unwilling to work in rural areas are also the ones which would make them ineffective if they had to work in such areas.



five



Chamelibai had sensed a change in Radha after the doctor left. She had sometimes caught a look of worry on Radha's face when patients came to the dispensary. Instinctively, Chamelibai had come closer to Radha during that time. "Nursebai is really a kind person," Chamelibai thought to herself. "And so young! The village people don't realize how concerned she is about their health problems."

Chamelibai liked going to the village with Radha. She felt important explaining matters of the village to her. There were so many things that Radha did not know about and sometimes Chamelibai thought Radha asked very funny questions. She didn't always understand either. Just the other day Chamelibai had pointed out a tree which had small bundles of cloth hanging from its branches. She had told Radha that by doing this the people believed they would get a child. Radha had simply laughed at this explanation and refused to take it seriously. Chamelibai had felt quite hurt by Radha's response at that time.

In spite of such differences, Chamelibai and Radha got along quite well. Chamelibai agreed with Radha that cleanliness was a big problem in the village. She felt this was because people did not understand the connection between dirt and disease. So she did her best to reinforce Radha's health messages in the village.

Radha had been patiently taking every opportunity to give health education to people. Each time a mother brought her child for treatment she explained the

need to give enough food and water to the sick child. Visiting homes, she'd talk about the need to dig drains so that water did not collect in puddles and thus increase mosquitoes. She'd stress the need to wash children's hands before they ate food. She pointed out the importance of sanitation and personal hygiene time and again.

The people listened, invited her to visit their homes and even offered her tea. She felt encouraged when she noticed that some people like the school teacher and the sarpanch's family had already followed some of her advice. Having changed themselves she felt they would be in a good position to influence the others. She knew it wasn't easy for everyone to change their habits but thought it was really a matter of time. More and more people would soon realize the importance of what she was saying and accordingly change their ways.

Time passed, but things remained more or less the same. Looking around the village Radha felt that all her efforts had been wasted. Aside from immunizing a few children and mothers, and treating common diseases, she had not succeeded in doing anything else. The people and their surroundings were as dirty as before, many children were still malnourished, and people continued to suffer from the same illness again and again. What was she to do if the people didn't listen to her? **Why couldn't they implement even simple health messages?**



## 5 : Why don't people implement simple health messages?

Health workers try to change practices and beliefs that they consider harmful to the health of the individual. These practices are usually related to nutrition, personal hygiene and sanitation. Health education implies that it is within the power of individuals to determine their own health status. For example, by eating adequate and nutritious food, an individual can increase her resistance to disease; by keeping her surroundings clean she can help prevent her family and neighbours from falling sick.

Most people in rural areas in India, still believe that human beings have little control over events affecting their lives. Since the underlying assumption in health messages is that human beings can control disease, there is a tendency to reject this information. This is why many of the health messages are either ignored or forgotten. For people, accepting these messages would mean changing their belief system.

In an earlier chapter we have seen how every society develops a set of beliefs out of an understanding of their experiences. This set of beliefs provides an explanation of why things happen and can be called their 'world view'. This world view is related to every aspect of life including health and sickness. Based on this understanding of life, social customs develop, which in turn dictate the behaviour of individuals in the society. These customs, along with the world view, get handed down from generation to generation. Over a period of time the logic behind these customs tends to be forgotten but the customs continue to have a powerful hold on people's behaviour.

Any new information which challenges these customs and the associated set of beliefs is perceived as a threat. Beliefs, customs and traditions therefore take a long time to change, but change does occur. To take an

example, in many societies it was believed that natural calamities including sickness was the work of supernatural forces. Human beings could do little to change or alter the course of events.

With the origin of scientific thought, it began to seem as if human beings could actually influence events in life. At that time this notion challenged human's long held beliefs and was seen as a threat. Science seemed to challenge God Himself. This led to a lot of adverse reaction against those who believed in science. However, as evidence increased that more and more of life and events could be explained by science it was no longer possible to reject this scientific information completely. Ways had to be found to incorporate this set of new information and beliefs into the old ways of thinking. This adaptation did take place and can be summarized in the change of a popular saying from 'It's God's will' to 'Do your best and leave the rest to God'.

Health messages also contain new information. Accepting these would mean changing old customs and replacing them with new forms of behaviour. Even though this change may not disturb the person's whole world view, as happened in the above example, it does disturb a set of beliefs. People react to change, small or big, in the same way. The first tendency is to reject this new information. Adaptation takes place only when evidence in favour of new information increases to such an extent that it is no longer possible to reject it. If enough evidence is not built up, people will continue to behave in the old way.

All of the above information helps us in understanding why people don't implement health messages especially when these are related to customs and beliefs. To take an example, a common health message to an undernourished woman is 'eat more food'. Even if the



woman understands the need to eat more to improve her health, she often does not do this because of the customs and beliefs involved. It is a custom that women eat only after the men have finished their meal. In a poor family where the amount of food is limited to begin with, it is more than likely that women are left with very little for themselves.

Health workers sometimes suggest that the woman overcome this problem by eating together with the men so that the food is equally shared, or by keeping aside a sufficient quantity for herself before serving the men. To the woman and her family, doing this would imply that she is as important as the men in the family. This would contradict the deep-rooted belief of society that men are more important than women. Changing this belief would cause a lot of disturbance and turmoil in daily life. It could mean questioning the many tasks that women do as a part of daily life for their families and for their men.

At a deeper level it could mean changing roles within the family and within the rest of society. At a still deeper level, it could question the belief that for a woman, her husband is her provider, her protector... her god. Anything that is perceived as an act to reduce his importance could produce the fear that some harm will come to him. This is why even a small change such as eating together or keeping aside enough food would not be acceptable to the woman herself. The woman need not come to this conclusion by following the above chain of thought. The very idea of changing an accepted social custom produces so much disturbance within her that she rejects the idea outright.

To take another example, in South India, hookworm infestation is very common. A frequently given health message tells people to wear chappals to avoid getting

this disease. However, it is socially accepted that only high caste people wear chappals. Low caste people do not wear chappals especially in the presence of the high castes. (This custom may have changed in some parts of South India, but still exists in others). Even a small act like wearing chappals by the lower caste could seem a challenge to the authority and superior position of the higher castes. Any action that alters accepted social relations between the castes could imply challenging the caste system itself. This is unthinkable because the caste system is linked with and thus justified by religion.

Both these examples show the importance of understanding social customs. These are linked to beliefs which are themselves interlinked. People are not willing to change these as it causes too much disturbance.

Social customs and beliefs are not the only reason which prevent people from changing. Resistance to change may also be due to obvious disadvantages which may escape the reasoning of an outsider. For instance, traditionally, the diet of a pregnant mother is restricted in many parts of our country. A health worker with her understanding that the birth weight of the baby is dependent on the nutritional status of the mother, might ask the mother to eat more than usual during pregnancy.

Village women do not follow her advice very often and the reason is precisely because the baby will be bigger. Their experience shows that if the baby is bigger, the mother has a difficult delivery. Since good obstetrical care is not available it is more advantageous for them to produce a smaller baby by eating less than to have a difficult delivery and thereby risk the life of both the mother and the child.



To take another example, many a health worker has been defeated in the process of trying to get people to build latrines and use them. To the health worker, defecating in the fields is both dirty and the cause of the spread of disease. The use of latrines may therefore seem to her, both hygienic and important for the control of disease. Village people on the other hand may find various problems in using latrines. Defecating on the same spot by many people, is often considered dirtier than the usual practice of going to the fields. The increased requirements for water to keep the latrine clean may be seen as a disadvantage in areas where water availability is itself a major problem.

In certain areas, women go in groups to the fields, not only to relieve themselves but also to take time off from busy domestic routines, exchanging news and getting advice on various family problems. For these women, the advantage of this psychologically satisfying habit is far more, than any advantages got through the use of latrines. On the other hand, women in several areas may feel that building latrines ensures privacy and safety, especially when the fields are too far from their houses and there is a fear of being raped when they go out in the early morning or late evening hours. But the decision to build a latrine is often made by the men who do not find it a necessary investment because these reasons do not exist for them. Considering all this, the health worker's attempts to get people to build latrines are usually met with resistance.

This process of resisting change because it is disadvantageous to people does not apply to health messages alone, as can be seen from the following example.

Traditionally, cooking in the villages is done on open wood fires in the house. As there are no windows or chimneys the room fills with smoke which gradually

escapes through the thatched roof. Cooking becomes an unpleasant experience and the women are prone to respiratory and eye infections. A new stove the 'smokeless chulah' was designed which could conserve firewood and draw out the smoke through a separate chimney. Despite the fact that it was also sold at a low cost, the chulah met with limited success in certain parts of the country.

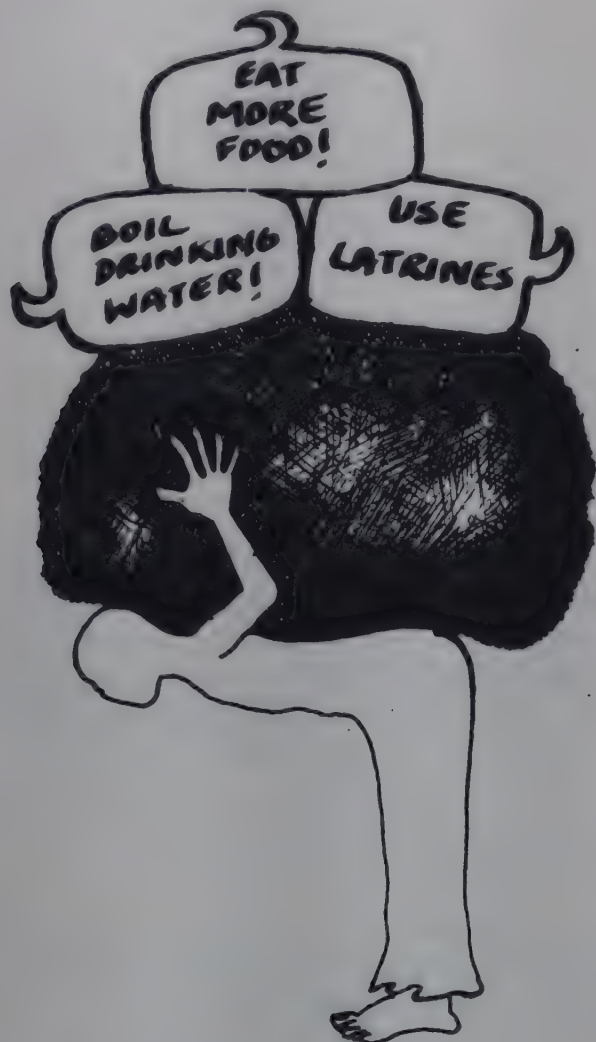
The reasons for this became apparent only after some time. In these areas, normally the thatch of the roof is infested with white ants. If these ants are not controlled they 'eat' up the roof in a very short while. The continuous presence of the smoke in the roof helps in controlling the white ants. In the absence of smoke the roof would have to be replaced more frequently and this would mean an additional expenditure. The advantage of smoke in the roof thus ruled out all other advantages present in the chulah.

Yet another reason why health messages are not implemented is due to the helplessness of people to make changes in their lives.

A rural woman from a poor family is overburdened with work. Apart from the routine work in the house such as cooking, washing, cleaning, grinding grain and looking after the children she also has to walk several kilometres to fetch water and spend several hours collecting firewood. Over and above this she works outside the home to bring an added income to the family. In such a situation some health messages given by the health worker can be impractical. The suggestion that a mother feed her child with specially prepared easy-to-digest food in small quantities several times a day is an example of this.

'Boil water before drinking', is another health message which does not take into consideration several practi-





cal constraints. The woman needs extra pots to boil and store the water while it is cooling. Her consumption of firewood increases. Even if she were to boil the water it still does not solve her problem when she is away from home. It is even more impractical to carry boiled and cooled water wherever she and her family go.

Similarly the message 'eat more food' can be a very impractical message for poor families in rural areas. A health worker can find this out for herself by considering the recommended diet for a family of 4 and calculating the amount of money required to purchase it. Table 1 gives the food requirement in grams for a single day for each member of the family. It also shows the total amount of food (cereal, pulse etc) that needs to be consumed by the entire family. The health worker can find out the cost of purchasing each of the above foodstuffs from the local market and compare it to the average daily income of a family in the area. While doing this she should remember that the family would also need to spend some money on other requirements such as clothes, medicines, maintenance of the house etc.

To summarize, implementing health messages implies change in people's behaviour. We have so far seen that health messages are often not implemented because of three reasons :

- Social customs are very much part of people's world view. Even a small change requires questioning at many levels.
- People may resist change because it is disadvantageous to do so.
- People may be helpless to bring about change in their lives.

It should be noted that, while the above reasons are valid, there are irrationalities too which prevent people from changing their behaviour. Health workers should neither dismiss everything as an irrationality nor should they hunt for meaningful reasons where none exist. We have given some suggestions in later chapters which may be helpful in overcoming some of these difficulties.



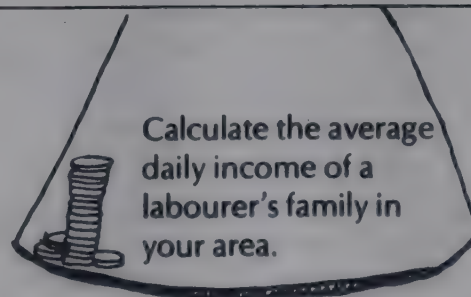
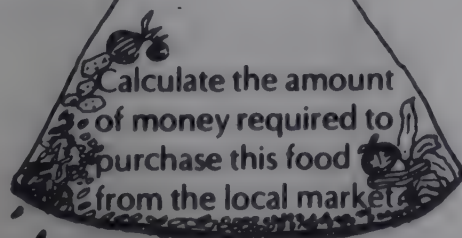
Amount of food required in grams per day for a poor labourer's family consisting of only 4 members (one husband, one wife, one child aged 6 years and one child aged 3 years).

## FOOD REQUIREMENT IN GRAMS

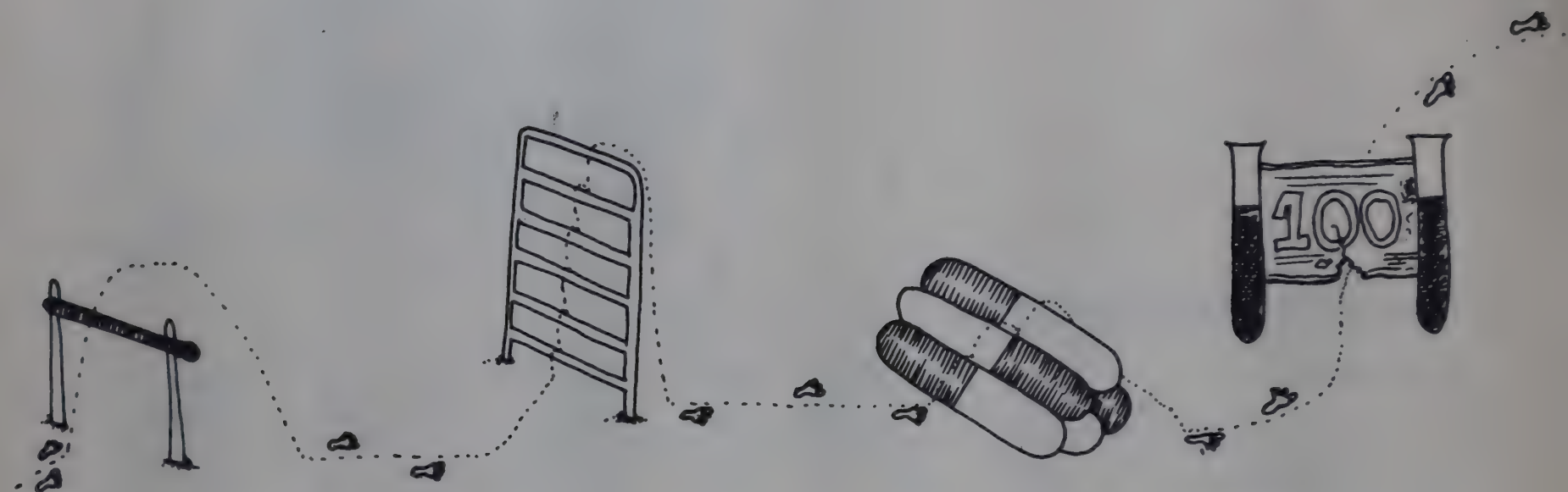
Family members	Cereal	Pulse	Green Veg.	Other Veg.	Roots Tubers	Milk	Oil fat	Sugar Jaggery
Adult male doing heavy work	670	60	40	80	80	250	65	55
Adult female doing heavy work	575	50	50	100	60	200	40	40
Child aged 3 years	175	35	40	20	10	300	15	30
Child aged 6 years	270	35	50	30	20	250	25	40
Total	1,690	180	180	230	170	1,000	145	165

(Source : "Recommended dietary intake for Indians," ICMR, 1981.)

### Exercise for the health worker







The following problems have been identified by a health worker in Madhya Pradesh for the failure of TB patients to take regular treatment for TB.

1. Problems of Diagnosis

- a) sputum exam : technician not available, or refuses
- b) x-ray/screening facility, distant, expensive, out of order, x-ray plates not available.

2. Failure of Communication to Patient by Doctor

- a) intention, or lack of intention of doctor to inform
- b) patient's fear
- c) contradictions in the belief system in society about disease
- d) doctor's impatience
- e) mystification of doctor's role
- f) poor relations/faulty communication between PHC staff

3. Problems of Drug Supply and Regular Issue

- a) genuine short supply to PHC from district HQ

- b) siphoning off of TB drugs into the market

- c) siphoning off of TB drugs into private practice

- d) incomplete issue of drugs

- e) doctor's failure to indent (maladministration)

4. Problems of Medicine Cost from the Market when Unavailable through Government Supply

- a) high/rising prices of essential first-line drugs, especially streptomycin injections

- b) shortage of all first-line drugs in the market due to gross under-production.

- c) increase in market supply of expensive second-line anti-TB drugs like ethambutol, rifampicin

5. Unnecessary Medicine Cost on Vitamin and Mineral Injections, Tonics and Costly Cough Mixtures

- a) brainwashing of doctors by medical representatives

- b) overproduction beyond licenced capacity of tonics, etc., by large and multinational drug companies





- c) mystification among the masses about tonics and desperation for quick-life-giving cures
- 6. Problems of Local Arrangement to Inject Streptomycin
  - a) unavailability of doctor/health worker to inject
  - b) fee for injection daily
  - c) PHC may refuse to issue injections to patient to take home
- 7. Problems of Transport
  - a) distance
  - b) cost in time, energy, fare
  - c) irregular public transport services
- 8. The Social Milieu at Home
  - a) Poverty—poor shelter, starvation
  - b) demoralisation
  - c) sex-bias in case of women, especially when childless or without living male offspring
  - d) belief in magic and lack of scientific concept of disease

- 9. Conditions of Workplace and Occupation
  - a) economic exploitation
  - b) noxious physical conditions, like inhalation of cotton fibre and poor ventilation etc.
  - c) lack of safety standards
  - d) lack of alternatives
- 10. Specific Malpractices by PHC Staff and Doctor
  - a) private practice
  - b) misinformation or non-information of patient
  - c) failure to record (incomplete) issue of drugs
  - d) neglect of monitoring schedule
  - e) failure to maintain treatment card
  - f) failure to contact defaulters by postcard.

It is sufficient to say that the average poor man of India who gets TB today is likely to face every single one of those obstacles, except 8(c) as he is not a woman. Inevitably, he becomes a defaulter, or he dies, or more likely both. Are there really any alternatives?



SUX

Radha had been feeling depressed for a number of days. She just could not understand things. She had put so much effort into her work but there was nothing to show for it. At least in her hospital she had the satisfaction of seeing seriously ill patients get well and go home. Here nothing seemed to change. She was concerned that somewhere, something had gone wrong. She wished she could discuss the matter with someone.

A doctor had at last been found for part-time work in the dispensary, but he had absolutely no experience of village work. Chamelibai realized Radha's confusion but she too could offer no proper explanations. According to her, people were like that and they would remain like that. Radha was not willing to accept this explanation. After all people had changed in the cities, so why shouldn't people in the villages change?

She and Chamelibai continued with the village visits and still gave health education to people though Radha's heart was not in it. The people were still friendly, if anything, a bit friendlier. They stopped to chat with them for a while and some insisted that they come and have a meal at home. Radha generally refused, thinking that their offer was made out of politeness.

One day Radha and Chamelibai visited Rukmini's house. Her son had been very ill and Radha was worried. One of Rukmini's children had died about 6 months back and Radha knew how much the life of this child meant to her. She was relieved to see that the child was a bit better today and spent some time chatting with Rukmini. As she was about to leave, Rukmini once again asked Radha to stay for dinner. Radha hesitated. Chamelibai had told her the family was poor and

needed all the food they had. She was about to refuse when an idea struck her. She thought, why not stay and see what Rukmini fed the child? Perhaps over dinner, she'd be able to suggest some ways in which the family could eat better! So she agreed to have dinner and Rukmini suggested that they visited a few families and then come back

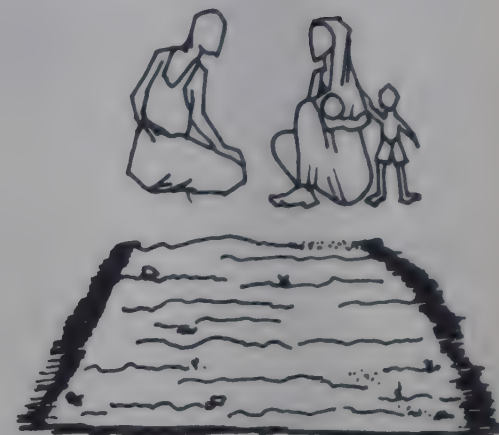
Radha and Chamelibai returned about an hour later and started talking with other members of the family. After a while Radha wondered why the food was taking so long to be cooked. When Rukmini eventually called them to eat, Radha was surprised to see only two thalis put on the kitchen mat. Rukmini said that she and the others would eat later. Radha was even more surprised when she found that Rukmini had prepared rice and chicken for dinner. She couldn't believe it. Chamelibai had told her that Rukmini was very poor and didn't have good food to eat! Radha couldn't wait to ask Chamelibai about this and after eating a small amount, both thanked Rukmini for the lovely meal and left.

As soon as they had gone a little distance, Radha asked Chamelibai about the chicken. The natural explanation, Chamelibai said, was that Rukmini had borrowed the good rice and chicken to prepare a special meal for them. They had been guests after all! Of course Rukmini was poor. She and her family never ate chicken themselves, Chamelibai added. But what about all the times that Radha had taken tea in people's houses? Surely the people had not prepared that specially for her? Chamelibai asked Radha to think of the many times when tea had taken a long time to come. Someone from the family had been sent running, to borrow milk or sugar!

This information puzzled Radha a great deal. Were people so poor that they didn't even have milk for tea?



## 6 PART A : Are people so poor that they do not even have enough milk for tea?



To an outsider visiting a village, it seems clear that village people are poor. The comforts which are associated with wealth are absent in villages, where even basic facilities like roads, transport, tap water and electricity are often non-existent. The fact that people have to do hard physical labour, live in mud houses and own few possessions also seem to show the poverty of village people. Food seems to be the only thing that is in abundant supply. The sight of fields upon fields of standing crops, herds of grazing cattle and vegetable patches in front of the houses, add to the general impression that there is no shortage of food in the village. Because of this, it may be hard for anyone to believe that people cannot afford even milk for tea.

To begin with, an outsider has no quick way of estimating the true income of a family in the village, since no one gets a fixed monthly salary and income depends upon land and cattle. It is also difficult to know precisely who owns the land and animals. Even if one had this information, it is meaningless without knowing how much earning is possible from the land and how many family members have to be supported on this income. Therefore it is generally assumed that if a family has land, it must have enough food for survival at least.

But take the case of Vasant. A casual enquiry would show that he owns four acres of land. Including himself, there are five adults and three children in this family. From this it could be concluded that Vasant's family has sufficient food to eat. A closer look however, reveals a completely different picture. (*This case study has been built around information on agricultural operations given in a socio-economic survey done in Kolaba District, Maharashtra.*)

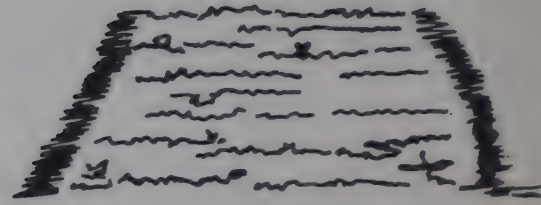
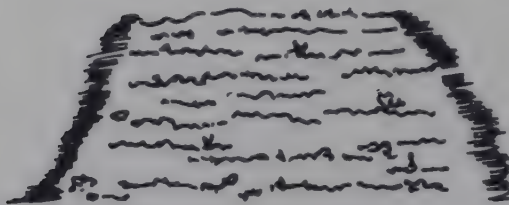
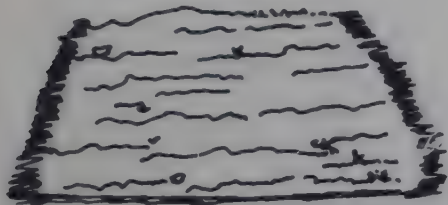
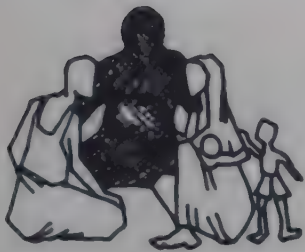
Vasant's family has lived for generations in Kolaba district of Maharashtra. They belong to the Agari Caste. *Agari is an intermediate caste i.e. neither high nor low caste.* In more ways than one, his family is considered 'average' according to village standards. Vasant is the eldest son in the family. For the past several years, Vasant had been looking after the household affairs since his parents had become too old. Vasant's two younger brothers had migrated to Bombay along with their families after marriage. This had become necessary since their land could not by itself have supported the family which had grown larger by now. That had left Vasant, his wife and their three children, Vasant's unmarried sister and his parents to live off the land.

At the time Vasant took over the household affairs, the family owned four acres of unirrigated land. They depended completely on the monsoon for cultivation and grew one main crop of paddy. Once the paddy was harvested the family grew horsegram since it did not require much water.

Apart from this land, they owned a cow and a few chickens. This was the sum total of the family's assets.

With good and timely rainfall, Vasant was able to harvest about 20 quintals of paddy from his 4 acres. (1 quintal = 100 kilograms). Out of the 20 quintals, he would keep aside 5 quintals for meeting expenses on his land such as hiring bullocks, seeds, fertilizers, etc. The family's food requirement for the year was another 11½ to 12 quintals. With the remaining 3 quintals, Vasant managed to meet the rest of their expenses, like clothing, medicines, and an occasional visit to the town, for festivals etc. Provided there was no heavy expense like marriage, or a major illness, Vasant even managed to have a small amount of paddy left at the end of the year.





By village standards the family was comfortably off. They had enough rice to eat and the horsegram, vegetables and milk, all of which came from their own farm was also consumed by the family. They were able to meet all their basic expenses and also put aside a small amount for emergencies. However Vasant was not in a position from which he could look upon the future without fear. He knew his sister would have to be married in one or two years and that he would need to borrow money for this. He hoped he would somehow manage to repay the loan without losing his land.

Vasant also cherished a secret dream—someday in the future he would sink a well on his land and perhaps even buy two bullocks for himself. Then he would be able to have two crops and no delay in sowing. But Vasant didn't share this with anyone and didn't think too much about it himself. He had too many commitments. For two years in a row Vasant had been getting a good crop. The family had been eating well and Vasant had enough to last him till the next harvest. In fact he had two quintals over and above what he would require.

Then in June, 1979, the monsoon was poor. Vasant knew that he would not get a good crop (in October, 1979) and that next year (October 79 – October 80) the family would find it difficult to manage. They would have to use up their savings to survive. Vasant decided to put aside as much as he could for next year. To do this, the family began reducing their food intake. They also started selling the milk from their cow.

As expected the harvest (October 1979) was poor, and Vasant managed to get only eleven quintals. This was not enough, but together with their savings, they could perhaps make both ends meet. The family continued to eat poorly, and made every effort to earn some extra

money. Vasant took his son out of school so that he could graze the landlords' cattle. Whenever they got employment, both he and his wife worked as labourers in the government food-for-work programme. For one year now the family's circumstances had not been too good and the children had been falling sick more often. The farmers in the village hoped and prayed for a good and timely monsoon the next season (June 1980). Unfortunately the rains came late.

As usual Vasant had to wait for the other farmers to finish ploughing before lending him their bullocks. Both of these combined to delay sowing, and once again Vasant knew that he would have a less than average yield. This time the family would have no savings to fall back upon. Vasant's family could not cut down their expenses any further. They had already reduced their expenses to the bare minimum. In fact, their expenses started increasing. Over the last 1½ years they had been eating less than adequate food. The children fell sick more often. His father's health too had deteriorated. When Vasant's youngest child had to be taken to the hospital, the family was forced to sell the cow.

Vasant got only 10 quintals of paddy at harvest time (October 1980). The family struggled with their meagre resources for as long as they could and somehow managed to sow their fields next year (June 1981). However, they did not have enough food to last them till the harvest and were forced to borrow 1½ quintals from the landlord.

Harvest time came (October 1981) and the crop was much better than it had been the last two times. By itself the 14 quintals that Vasant harvested could have been stretched for the full year. But Vasant had to repay at least a part of the loan to the landlord. Further,



actually failed in 1979.

help the reader place the events in a time sequence. We do not intend to say that the monsoon

Year	June	Period between June and October	October	Period between October and June next year
1979	Monsoon is poor.	Vasant's family starts reducing food intake. Also starts selling milk from their cow.	Harvest poor. Vasant gets 11 quintals only. He has some grain saved from previous years also.	Family continue to eat poorly. Vasant takes his son out of school to graze the landlord's cattle. Both he and his wife try to find extra work. Children start falling sick more often.

1980	Rains come late. Ploughing and sowing get delayed.	The family continues to eat poorly. Expenses increase because of ill health. Sells cow to take son to hospital.	Harvest poor again. Vasant gets 10 quintals only. He has no savings this year.	Family struggles to manage with the little grain they have.
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1981	Rains come on time. Vasant manages to sow his fields with his own grain.	Family does not have enough food left to last till October. They borrow 1½ quintals of paddy.	Harvest is better this year. Vasant gets 14 quintals. He has to repay part of his loan.	Family repays part of the loan. Money has to be spent on rethatching the roof, clothes, medicines etc. Vasant is again forced to borrow from the landlord. He is forced to mortgage 3 acres of his land.
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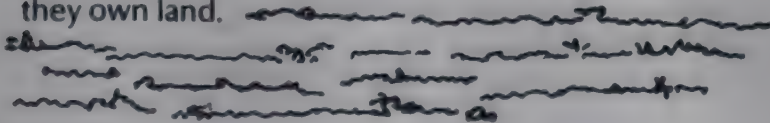




he could not avoid certain expenses. The roof had to be rethatched, some clothing had to be bought, money had to be spent on medicine. All this compelled him to borrow once again from the landlord (early 1982). The landlord reminded Vasant of his unpaid debt. Considering the amount that Vasant now wanted to borrow, the landlord wondered how he would recover his loan.

Vasant had no assets besides his 4 acres of land. His cow had already been sold. The landlord insisted on having some security before lending more money to Vasant. Vasant desperately needed the loan and finally agreed to mortgage 3 of his 4 acres of land in order to get the loan. The arrangement now was that Vasant would give half of his harvest from 3 acres to the landlord. His family would have to survive on the little that was left after paying for the expenses required on the land. Vasant still legally owned his land. However, both he and the landlord knew that Vasant's family would spend the rest of their lives repaying a loan which would never decrease.

People like Vasant, if asked, will continue to say that they own land.



From this case study it is clear that owning some land by itself, does not mean that a family has enough food to survive. The amount of land necessary for survival depends upon several things — the quality of soil, irri-

gation facilities, amount of money available for investment etc. Also, each family's minimum land requirement may differ according to family size.

Even if a family legally owns sufficient amount of land, it does not necessarily follow that what they produce is theirs to consume. A large part of their produce may have to be given away as repayment of loans.

For a large number of farmers, the income from their land is just enough to cover their expenses from year to year. This income does not permit them to put aside a sufficient amount for meeting future emergencies. Because of this tight balance between income and expenditure such families cannot avoid borrowing at some time or the other. Rains may be inadequate, sowing may get delayed, pests could damage the crop and each of these could lower their income. Similarly, a major illness in the family, marriage or death can increase expenses, which such a farmer cannot meet on his own. Once a loan is taken, it is very difficult for them to recover from their debts. If this is the condition of small farmers like Vasant who own atleast some land, then it is obvious that the condition of those who are completely landless will be much worse.

An outsider is right in associating the village with plenty of food. But the assumption that the one who produces also consumes is not necessarily true. In every village, there will be many families like Vasant's who own either very little or no land at all. It is these families who will not be able to afford even milk for tea.





A study of a village in Tamilnadu concluded that:

“Low income makes it difficult to save and to avoid getting indebted. There are no margins for savings, since even inelastic needs — like those for food, housing and clothing have to remain partly unfulfilled:

**Purpose of taking loan (refers to the biggest loan in each household).**

Purpose	% of all indebted households
1. To buy food, and cover other domestic expenses (including house construction and repair)	64
2. To cover cultivation expenses (including investments)	24
3. To cover ceremonial expenses (marriages, funerals, etc.)	20
4. Other purposes	6
<b>TOTAL</b>	<b>114</b>

(Note : The percentages sum up to more than 100 because some households have given more than one purpose for taking the loan)

The commonly held belief that farmers like Vasant borrow money mostly for ‘avoidable’ expenses like marriage and death ceremonies, is incorrect as the table clearly shows. The maximum loans are usually taken for meeting basic requirements.

when people are confronted with major expenditures: rethatching of their hut, arranging an expensive ceremony, like a marriage or a funeral — or when they are struck by an economic crisis—crop failure, unemployment, disease etc — they have no funds accumulated with which to meet the expenses. Expedience drives them to the money lender.

“The mean rate of interest on all loans taken (from the money lender) is 37 per cent, or about three times the maximum permitted by law (12.5%). The most common form is one bag of paddy as yearly interest for a 100 rupee loan. Since the price varies from 40 to 60 rupees per bag, this is equal to 40 — 60 per cent interest rate. Another common rate is 6 per cent per month, which is the interest demanded by the pawn-brokers for short term loans.”

Behind Poverty - the Social Formation in a Tamil Village, 1975.



DOUBLE THE DEATH RATE

400 TIMES HIGHER  
MORTALITY FOR MEASLES

4 TIMES MORE DIARRHOEA

3 TIMES MORE LIKELY  
TO DIE IN INFANCY

6 TIMES MORE  
STILL BIRTHS





## 6 PART B : Why should a health worker be interested in knowing how poor a person is?

At first it may seem to be of little interest to the health worker to find out how poor a person is or how many people in the village are poor. From her training she knows that the diagnosis and treatment of a disease does not change because of the specific economic status of the individual. To her the signs and symptoms of any disease, be it of the respiratory, digestive or circulatory systems are similar in both rich and poor patients. But she also knows that economic status influences health — for instance, crowded living conditions, unhygienic surroundings and inadequate nutrition, do contribute to illhealth. What a health worker may not realize is that for a large number of people **economic status decides their health status throughout life.**

Consider the following facts :

According to the Indian government, 50.82% of the people in rural areas live below the poverty line. This means, that more than half of the rural population (i.e. 260 million) cannot even eat the minimum amount of food necessary to survive. It has been established that inadequate nutrition results in a less effective immune response i.e. undernutrition, by lowering immunity, makes a person more susceptible to disease. This is equivalent to saying that 50.82% of the people in rural areas are either already diseased or are on the point of becoming diseased.

“Low birth weight babies (below 2500 grams) are three times more likely to die in infancy than babies of normal weight at birth.”

(UNICEF)

“...where malnutrition is common the mortality rates for measles is 400 times higher...”

(Morley and Woodland)

“Attacks of diarrhoea are... 4 times more frequent in malnourished children.”

(Morley and Woodland)

“Maternal mortality among anaemic women is five times that of non-anaemic women. The effect on the foetus is even greater... the still birth rate being six times as high as in non-anaemic women.”

(Llewellyn Jones)

“It is likely that nutritional deficiencies and complications arising from them are responsible for about three fourths of the total morbidity among the patients surveyed.”

(Djurfeldt and Lindberg)

“Poorer people live significantly shorter lives. Death rates among low income groups are estimated to be about twice as high as those of the better off. (One study found that the death rate was 14 among the land owning farmer and 23 among harijans in the same area).”

(Poverty and Development : a Programmed Course, Search and Taftee)

The above statistics show that from the time a person is born in a poor family, her “fate” is sealed. Her poverty determines her health status throughout life. Her poverty decides

- her chances of survival at birth
- the number of times she is likely to fall sick and
- the age at which she is going to die.





After that dinner incident, Radha found herself thinking a lot about Rukmini and her family. How did Rukmini manage to work the whole day in the fields, bring water from the nallah, cook food and look after her three children? No wonder she looked so tired most of the time. Radha remembered Chamelibai telling her that Rukmini's husband had a very bad temper and that Rukmini and the children were very scared of him.

One day Radha asked Chamelibai, Rukmini's age. She was surprised to learn that Rukmini was only 30 years old. Radha had thought she'd be in her forties.

It struck Radha that Rukmini was only four years older than her and had already borne four children. "Six, not four," Chamelibai promptly corrected.

Rukmini had begged the dai to abort two of her children and had become quite ill after one of the abortions. "But that's nothing. Some women of Rukmini's age in the village have become pregnant eight times already. Rukmini has been lucky in comparison," Chamelibai coolly added.

Children, Children, Children! Why did people want to have so many? Radha just could not understand this. She knew that very few children went to school. Very often the children just seemed to be on their own and no grown-up was in sight. She remembered the school teacher telling her that village people just didn't realize the value of education. He said he had got tired of persuading people to educate their children and had

stopped caring now. Hardly anyone finished school anyway, he added bitterly. Most of the children just dropped out sooner or later. Then, he had almost given Radha a lecture on the need for family planning and had told her that if she did nothing else but succeeded in convincing people to have fewer children, she'd have done the country a great service!

Radha was supposed to talk of family planning as part of her work. She had done so in the earlier months but was discouraged when women said to her "What do you know about family planning? You are not even married!" After that Radha had spoken about family planning only when someone asked for advice themselves.

One of the government ANM's had also asked Radha to help her in meeting her family planning targets. Radha had hesitated, and told the ANM about how people had reacted to her advice. The ANM had suggested that Radha visit homes with her and later maybe Radha could talk about family planning on her own. Not wanting to offend the ANM, Radha had agreed reluctantly but had stopped going after a few days. The women didn't seem to like the ANM very much and a few of them had been rude to her.

Now thinking of all this, Radha still could not understand. People like Rukmini were so poor. They hardly had enough to feed and clothe their children, leave aside educate them. **Why then did people like Rukmini have so many children? No wonder they were so poor.**



## 7 PART A : Why do poor people like Rukmini have so many children?

It is commonly believed that having a child increases a family's responsibilities. Expenses are bound to go up, and time will have to be spent in taking care of the child. For a family which is poor and already has enough worries, it is assumed that a child will add to their problems. For the father, who is considered the chief earning member, more children will prove to be a greater financial burden. For the mother, more pregnancies will lead to greater illhealth and an inability to look after her children. In a large family the child will be poorly nourished, more unhealthy, get less love and affection. Parents will not be able to educate the child and adequately plan for its future. Because of all this it seems reasonable to popularize the idea of 'a small family, a happy family.'

Health workers are therefore expected to promote family planning methods in their area of work. In doing so, they often find that people are reluctant to adopt any method of family planning. Health workers cannot understand this "resistance" because to them the reasons for limiting family size are so simple, logical and basically in people's interest. People, however, have their own reasons for wanting large families. They are acutely aware of their day to day struggle for survival and to them, it seems more beneficial to have more children.

From available knowledge about societies (past and present) it has been observed that there is a direct relationship between family size and means of survival (i.e. method of obtaining food). The rate of reproduction in a society is such that it maintains the optimum family size required after taking into account the prevailing rates of death in that society. Social customs and religious practices evolve to ensure that the family size suitable for survival is maintained.



The above inter-relationship will become clear by looking at the reproductive behaviour in two separate societies i.e. the hunter-gatherer and the agricultural societies.

### Hunter-gatherer society

In this society people did not produce their own food but relied solely on available natural resources. Their means of survival was hunting of animals and collecting food from the forests. This involved travelling long distances in search of food and estimates show that some groups travelled as much as 4200 km per year. People travelled in groups for protection. The group had to be large enough to offer protection for its members yet be small enough so as not to restrict mobility.

To carry out the activities needed for survival the group had to have a large number of able bodied adults. Life expectancy was low and the adult population had to be continuously replaced. The rate of reproduction had to keep pace with the deaths among adult members. Reproduction also had to take into account the high child mortality. The intervals between births depended upon the mother's ability to look after her children, while continuing with her other activities.

For instance, while travelling the long distances required, it was the mother's responsibility to carry the child along with her normal baggage. She also had to breast feed and provide soft foods suitable for weaning. She was able to do all this only if she had to look after one child at a time. This made it necessary to have a minimum birth interval of three years between children.

Social customs helped to ensure that the required number of children were produced and after approp-





riate time intervals. Not having sexual intercourse for a given period of time after childbirth, breast feeding for two years or more, induced abortion, infanticide (the killing of new borns) were all social customs which effectively regulated reproduction. This can be seen from the following evidence. The rate of reproduction in the hunter-gatherer society was sufficient to produce a constant or a very slowly growing population.

This means that on an average, each individual family of two adults (i.e. one male and one female) would have contributed two or three surviving children to the population. In order to contribute these two or three children to the population, each woman would have had to bear double the number of children to compensate for childhood mortality which was 40-50%. This means that she would have borne a maximum of 4-5 children in the 30 years of her life (the average life expectancy in that society). Even in the short reproductive period of 15 years, a woman could have biologically produced more than 5 children. That she did not do so clearly indicates that some method of limiting family size was used.

### **Agricultural society**

In this society, cultivation was the means of survival. In order to grow food on land, people had to settle down in one place, at least from sowing to harvesting. Agriculture is basically seasonal in nature. It takes a few months to harvest a crop. Also crops cannot be grown continuously on the land without some means of irrigation. Thus, at harvest time there is a large quantity of food which has to last till such time as the next crop can be harvested. In order to produce sufficient quantities of food which can last till the next harvest, a large piece of land has to be cultivated. This cannot be done by a single

individual alone. Agriculture is also characterized by periods of intense activity (i.e. sowing, weeding, harvesting etc). Each of these activities has to be completed within a specific period of time. Once again it is not possible for a single individual to do all the necessary work.

Agriculture is thus characterized by short periods of intense activity and requires a large number of people to work together in order to produce a sufficient quantity of food. Survival in this society therefore depended upon co-operation between several people. Some sort of bond was necessary between them to ensure that people were available and could be relied upon to contribute their labour when required. Further, tasks had to be divided and someone had to co-ordinate the efforts of this group. In response to these requirements of agriculture, extended families (joint families) thus came into being. The extended families consisted of 2 or 3 generations of people living under the same roof. Within each generation also, several smaller family units (consisting of mother, father, children) existed. The members of this large family were held together through the strong ties of blood and marriage.

The eldest male member of the extended family came to be considered as the head of the family and had the power to make all major decisions. This large family functioned together as a single economic unit. Each member of the family was expected to contribute their share of the labour. Children too were expected to do their share of work from a very young age. They fetched firewood and water, herded animals, helped in cooking and cleaning and looked after younger children. By performing these household tasks they released the older members of the family to work in the fields. As the children grew older their share of house-



hold activity decreased and their labour was utilized on the land.

Each family member thus contributed labour and received a share of what the family produced. Each person's share of the family produce depended upon the value placed on their labour (this is probably the reason why women and children get proportionately less of what is consumed by the family because their contribution is considered to be of less value than that of the adult male). Only the very young, sick and very old members of the family were looked after without their active participation in the family's labour.

Children were a future resource whereas old people were respected for the contribution they had made to the family in the past.

Families in agricultural society were thus characterized by a large number of people held together by strong ties — each member contributing their labour, each accepting without question the authority of the head of the family and finally functioning together as a single economic unit. Economic survival made it crucial to have a large number of working members in the family. Reproduction had to keep pace with deaths among adults and to compensate for childhood mortality.

In Indian villages today, agriculture is still the main source of livelihood. However a significant change has taken place in the one basic requirement of agriculture i.e. sharp differences have arisen in the amount of land owned by people. This change began to take place in a major way during British rule in India.

By placing high taxes on land and making a group of landlords completely responsible for collecting this tax,



the British government forced farmers into a situation where they had to borrow from money lenders at high interest rates, to pay off the taxes. Unable to pay back these loans, farmers were forced to give up some or all of their land. Land thus began to be concentrated in the hands of a few people and more and more farmers became landless labourers dependent on agriculture. This process continued even after Independence. It has been estimated that in the 1970's, almost 30 years after Independence, 60% of agricultural land was owned by 12% of rural families, 1.6% of cultivated land was owned by 44% of rural households and 26% of rural families had no land at all. For these people, who are landless or small farmers, agriculture is no longer economical (sufficient to meet basic needs) even though, it is their chief source of livelihood.

In other respects, conditions of agriculture have not really changed. Cultivation is seasonal and still dependent upon rain. Agricultural work continues to be characterized by short periods of intense manual labour. For the majority, agriculture is still economical only when a large number of family members work together to produce. As a consequence families in rural areas continue to retain the chief characteristics of extended families. The work done by children (6-18 years of age) continues to be crucial for the survival of the family, whether the family owns land or not.

Landless agricultural labourers and people owning small amounts of land form the majority of the rural population in India. They are also the poorest people in rural areas. It is their children who contribute the most labour both within the household and on the land as can be seen from the following table.



**Percentage of children between the ages of 6 to 18 years contributing to agricultural activity and household work.**

Land holding	agricultural activity %	household activity %
Landless labourers	20.0	51.6
Less than 2.5 acres	21.7	44.6
2.5 acres to 5 acres	10.1	48.8
5 acres to 10 acres	12.4	32.7
10 acres to 15 acres	14.3	25.8
15 acres to 25 acres	7.9	37.9
25 acres to 50 acres	2.3	25.4
50 acres to 100 acres	0	37.8
Above 100 acres	0	12.5

Source : These figures are from a study done in the Marathwada region of Maharashtra and quoted in **Over population and rural poor** by M.V. Nadkarni, EPW, Special number 1976.

If the family has some land, it is beneficial for them to get as much of the work as possible done by the family so that less labourers have to be hired. If the family survives by taking a piece of land on contract, the larger the family, the more the land that can be taken for cultivation. If the family is working as hired labourers the more the members in the family, the better their chances of an increased income. As one farmer from Punjab explained :

“Just look around : no one without sons or brothers to help him farms his land. He rents it out to others with large families. Without sons there is no living off the land. The more sons you have less labour you need to hire and the more savings you can have . . . .” (Mamdani)

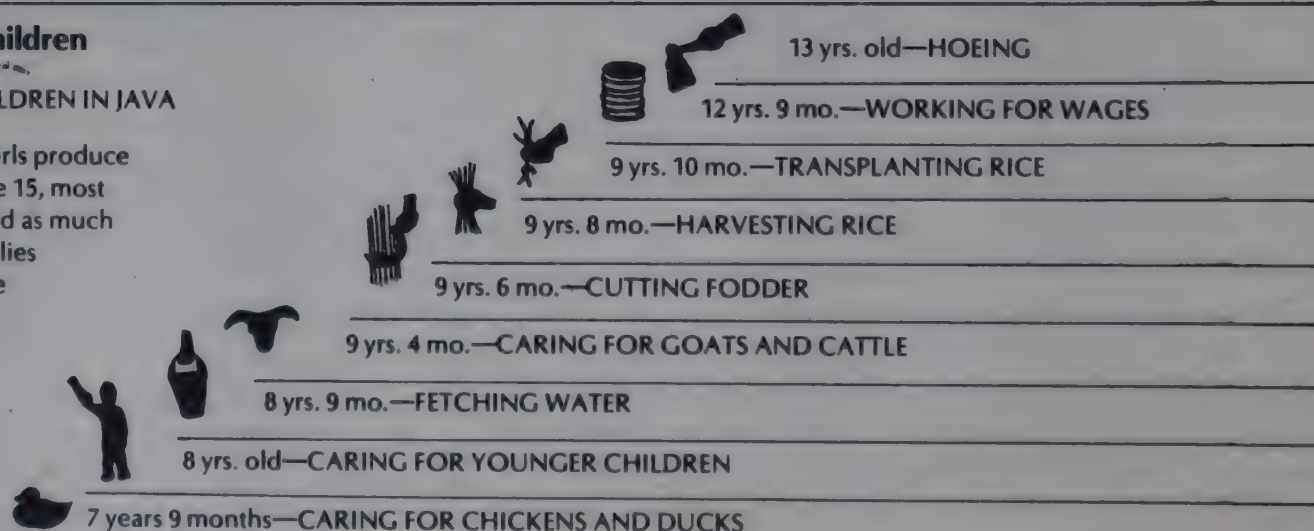
It is for this **basic economic reason** that families want not only a large number of children but a certain number of male children. Female children will no doubt contribute to the family labour but only till such

**Why the poor need children**

**WORK DONE BY THE CHILDREN IN JAVA**

By age 10 or 12, boys and girls produce more than they cost. By age 15, most boys already have produced as much as they have cost their families (in food, clothes, etc.) since birth.

Average age at which children begin each activity.





time as they get married and go away. It is the sons who will stay within the family and inherit the land from the father. The sons will also support the parents when they are old and no longer able to work. In the long run, therefore it will be the male children who will be of most economic benefit to the family.

It has been estimated that a woman in India needs to bear 6.3 children in order to ensure that one male child survives. As we said earlier, in any society the rate of reproduction has to take into account the prevailing death rates in that society. The fact that families tend to produce fewer children as the risks of child mortality decrease can be seen from the table below :

State	Infant Mortality	Crude Birth Rate
1. Uttar Pradesh	178.7	45.6
2. Rajasthan	168.8	54.0
3. Gujarat	165.2	42.3
4. Assam	129.5	40.8
5. Andhra Pradesh	129.9	35.4
6. Tamilnadu	112.5	33.8
7. Karnataka	109.6	34.1
8. Maharashtra	106.9	32.9
9. Jammu & Kashmir	102.9	39.5
10. Punjab	97.6	33.6
11. Kerala	56.8	31.1

Source : Quoted by Imrana Qadeer in **Population Problem—Myth & Reality**

In States where the infant mortality rate is low, birth rates are correspondingly low too. Since children, especially sons are considered vital in agricultural households, social customs and religious practices strengthen this view. There is a great deal of social pressure on the women to bear children soon after marriage. If

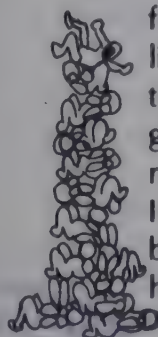
a woman does not conceive within a few months of getting married she is branded sterile and considered unlucky. The full weight of social disapproval falls upon her. By custom, the husband of such a woman is fully justified in remarrying.

A woman who does not bear male children is again considered unlucky and is in danger of being condemned. Religious beliefs reinforce this need of having male children. It is the religious duty of the eldest son in the family to perform the death rites for his father. In these circumstances women continue to bear children in the hope of having one or two surviving sons.

This does not mean that families produce an unlimited number of children. It is more likely that a balance is maintained between a family's need for labour and its resources to sustain itself. If a situation arises where the family has achieved the required family size, the tendency would be to control further pregnancies by using means available to them, for example, abortion, infanticide, not having sexual intercourse etc. Ultimately it is not in the interest of a family to have a family size larger than can be supported by it because overproduction threatens the very existence of the entire family. In fact there is always the possibility of further reproduction which is voluntarily held in check.

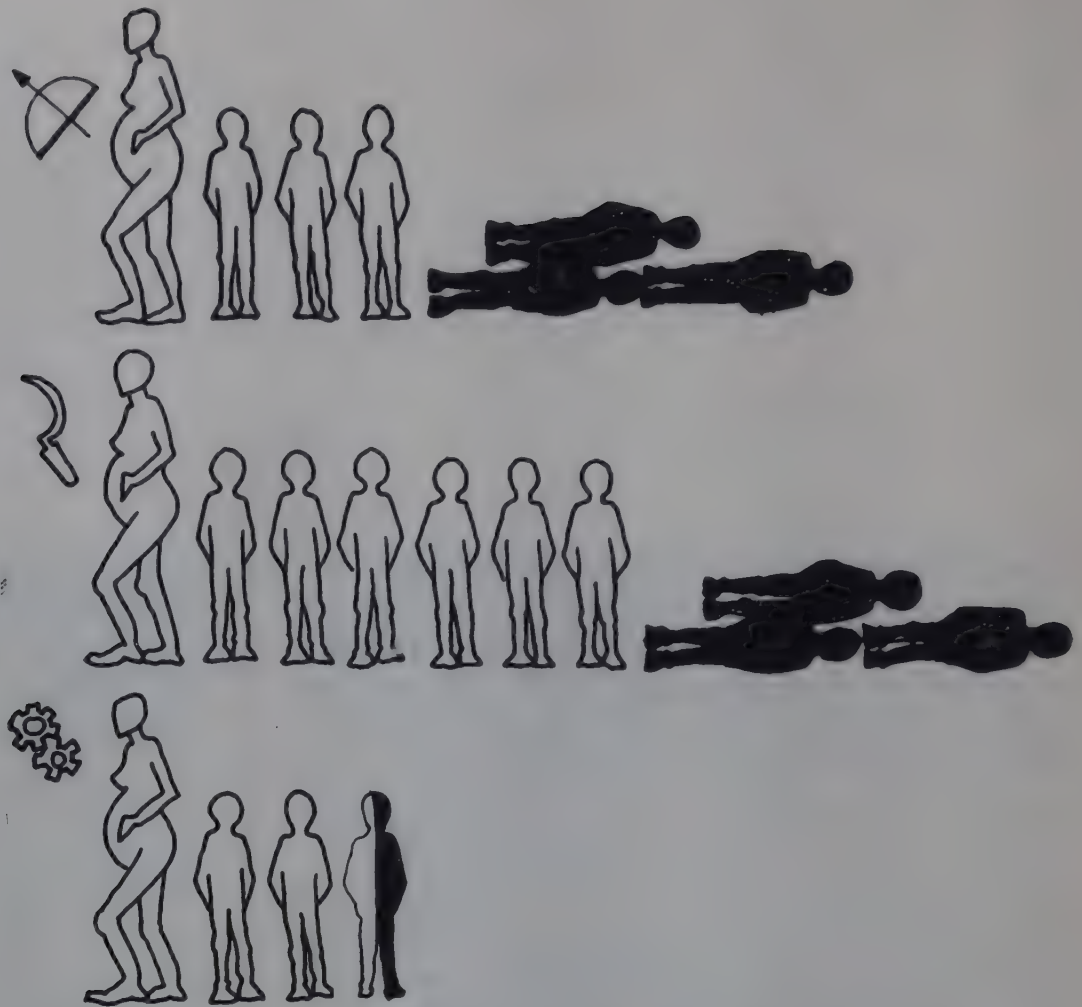
"A woman's reproductive period is roughly from 15-45 years. A woman married at 15 and living till 45 with her husband is exposed to the risk of pregnancy for 30 years and may give birth to 15 children, but this maximum is rarely achieved. Information on fertility in India indicates that an average woman gives birth to an average of six or seven children if her married life is uninterrupted."

(Park and Park) 51



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From all that we have seen so far, family size is determined by the economic situation in a society. The economic situation in India at present is not uniform for the entire population. Three fourths of the population is in rural areas, mainly relying on agriculture. As already seen these people require large families.

Having fewer children will be of advantage to them only when :

1. The work done by children is not significantly important for the survival of the family. This would mean that tasks normally carried out by children do not need to be done at all e.g. fetching firewood and water. This would also mean that adult members of the family earn a large enough income to support children throughout their unproductive years of life (almost 1/3 of their life span). Support would include food, clothing, education, vocational training etc.
2. Adults in their old age are not economically completely dependent on their children. This would mean either that the adults have the possibility of saving enough money for their old age,

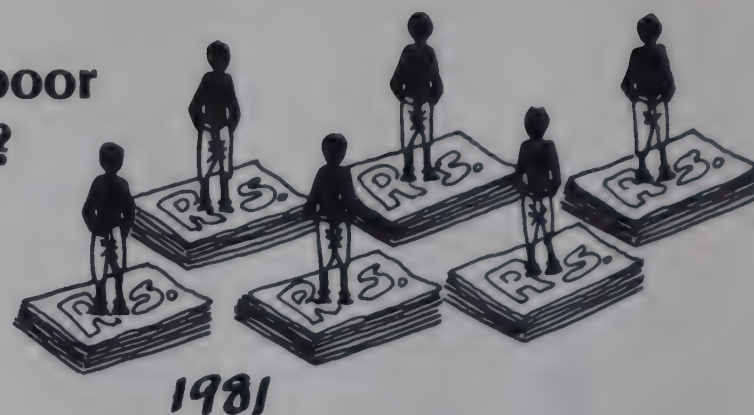
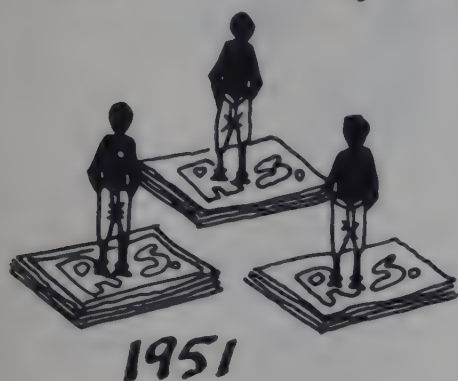
or that some institution outside the family guarantees support in old age (e.g. through pensions, compulsory savings or government welfare schemes).

3. Parents are assured that the children born to them will survive. This would mean that the family lives in reasonably hygienic surroundings, has access to protected water supply, is able to afford adequate nutrition and medical care etc. This would also mean that the health care system is adequately able to monitor the growth of children.

The above three conditions are present only for a small percentage of people in our country i.e. the regular and permanent salaried workers in government and industry. These people have already adapted their reproductive behaviour to suit their economic and social conditions. Whenever these conditions become present for a large majority of the population, their social customs and religious beliefs will also change in keeping with the small family norm.



## 7 PART B : Are People like Rukmini poor because they have so many children?



IF WISHES WERE HORSES  
THEN BEGGARS WOULD RIDE

Whenever we see a poor family with a large number of children, we tend to conclude they are poor **because** of the number of children they have. This link between overpopulation and poverty is so firmly established in our minds that we usually do not look for other causes of poverty. Various statements made by the government also seem to confirm this point of view.

- Food grain production has increased but more and more people are living below the poverty line.
- More and more industry is being set up yet unemployment continues to rise.
- Facilities for housing, transport, education, health, keep increasing yet they are grossly inadequate.

The underlying assumption in all these statements is that the country is going in the right direction but overpopulation constantly prevents progress. If we take the country as a whole, the population problem could be stated as follows :

Our country is poor because there are too many people in it. Resources are limited and are not sufficient to meet everyone's basic needs. All national efforts at improving the standard of living are wasted because the population grows faster than any growth in resources. The only way to reduce poverty is to first and foremost reduce population.

**Is overpopulation really responsible for the increasing poverty in our country?**

Let us look at some indicators of progress.

### 1. Per capita income

If we take the total income of the country as a whole for a particular year and divide it by the total population in that year, we get the income per person (per capita income) for that year. For example:

If the total income of the country in 1951  
and the total population of the country in 1951

the per capita income in 1951 will be

$$\begin{aligned} &= a \\ &= b \\ &= \frac{a}{b} \end{aligned}$$

If we take the per capita income in our country, we find that it is steadily rising.

In 1951, the per capita income was

$$\begin{aligned} &= \text{Rs. 466} \\ &\quad (\text{at 1970-71 prices}) \end{aligned}$$

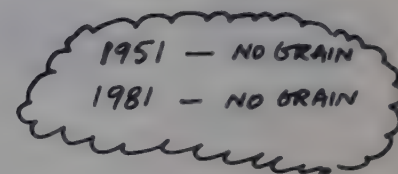
In 1981, the per capita income was

$$\begin{aligned} &= \text{Rs. 700} \\ &\quad (\text{at 1970-71 prices}) \end{aligned}$$

This means that if the country's income was divided equally among the population, each person would have got much more in 1981 than in 1951. This also means that **in spite of the increase in population** the total income within the country has grown steadily.







## 2. Per day per capita food grain availability

If we take the total amount of food grain in the country in a particular year and divide it by the total population in that year, we get the per capita availability of food for that particular year. This is the food available for each person for a full year. If this is divided by the number of days in a year i.e. 365, we get the per day per capita food grain availability. For example :

If the total food grain available in 1951 is

$$= a$$

and the total population in 1951 is

$$= b$$

the per capita food grain for 1951 as a whole is

$$= \frac{a}{b} = c$$

and the per capita per day food grain available in 1951 is

$$= \frac{c}{365 \text{ days}} = d$$

If we take the per day per capita food grain available in our country, we find that it, too, is steadily increasing.

In 1951, the per day per capita food grain availability was

$$= 394.8 \text{ gms.}$$

In 1981, the per day per capita food grain availability was

$$= 453.6 \text{ gms.}$$

This means that if the country's food grain was divided equally among the population, each person would have got more in 1981 than in 1951. This also means that **in spite of the increase in population** the total amount of food grains available in the country has steadily grown.

## 3. Unemployment

To earn an income, a person needs employment. Only then can the basic needs of survival be met. The number of unemployed persons in our country is however, steadily rising.

In 1956, the number of unemployed persons was

$$= 5.3 \text{ million}$$

In 1971, the number of unemployed persons was

$$= 18.7 \text{ million}$$

Therefore in 15 years, the number of unemployed persons increased by (18.7 million—5.3 million)

$$= 13.4 \text{ million}$$

In terms of a percentage increase, this would mean that in 15 years, the number of unemployed persons increased by

$$\frac{13.4\text{m}}{5.3\text{m}} \times 100 = 252.8\%$$



This 252.8% increase in the number of unemployed persons is far greater than can be explained by the growth in population alone. This is because in the same 15 year period, the population increased only by 35% as can be seen from the following figures :

In 1956 the total population in India was	= 406 million*
In 1971 the total population in India was	= 548 million
Therefore in 15 years, the population increased by (548m—406m)	= 142 million
In terms of a percentage increase, this would mean that in 15 years, the total population increased by	$\frac{142\text{m}}{406\text{m}} \times 100 = 35\%$

\* This figure has been calculated using the population for 1951 as base and using a 2.5% growth in population per year.

Thus, unemployment has increased approximately 7 times more than population in 15 years. So population growth cannot be the main cause of increasing unemployment.

If such a large percentage of people are unemployed it is obvious that they are unable to meet their basic needs. Since population growth is not the only cause of increasing unemployment, it follows that population growth is also not the cause of increasing poverty.

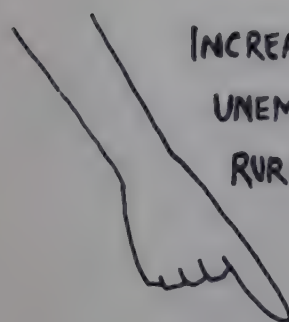
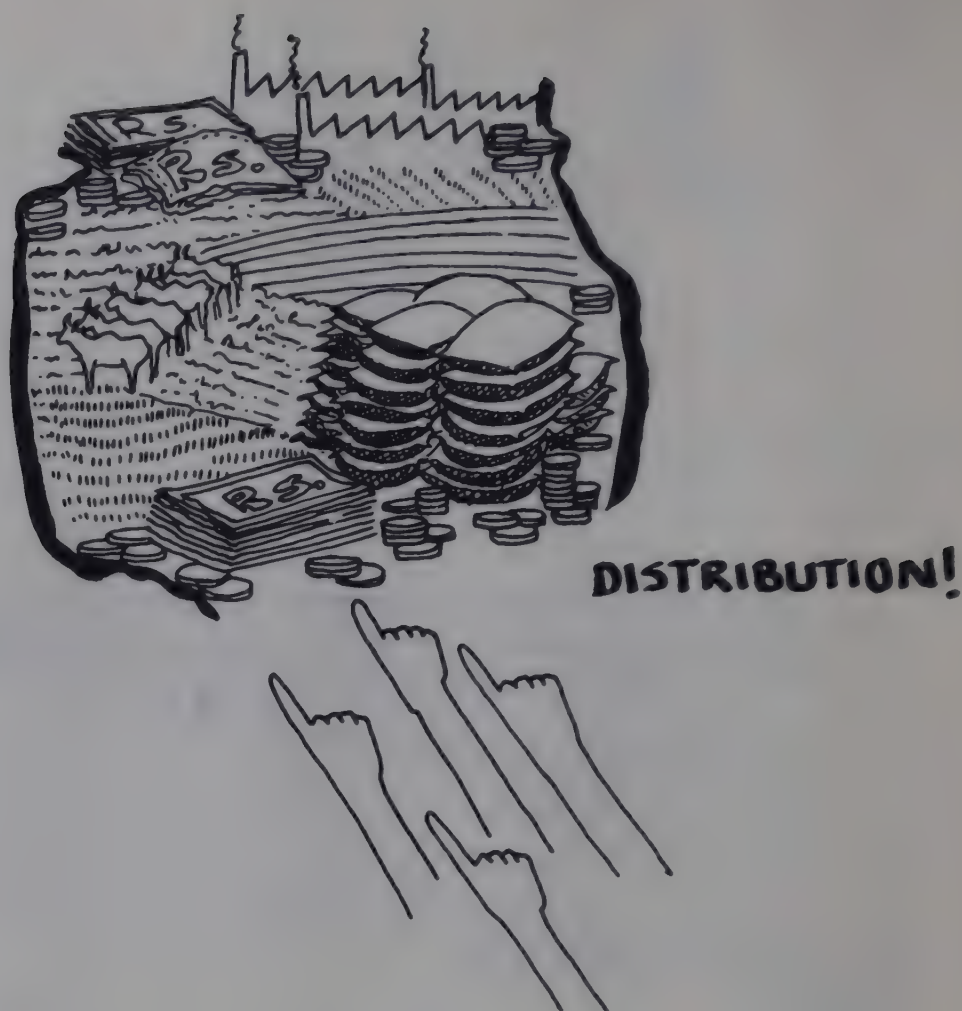
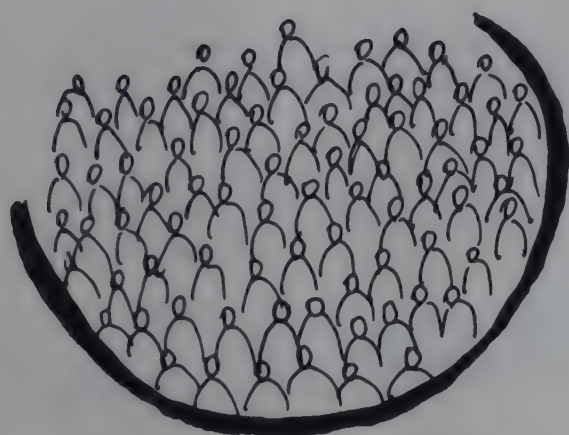
So far we have seen how overpopulation is usually held as the main reason for poverty in our country. By considering 3 indicators of progress, we have seen that this argument is not true. Similarly, it is usually stated that the increasing landlessness of rural families is because of the problem of overpopulation. As we will go on to show, even this argument is not really correct.

It is true that the number of agricultural labour has been steadily rising. For example:

In 1961-62, the number of male agricultural labourers was	= 16 million
In 1971-72, the number of male agricultural labourers was	= 30 million
Therefore in 10 years, the number of male agricultural labourers increased by (30m — 16m)	= 14 million
In terms of a percentage increase, this would mean that in 10 years, the number of male agricultural labourers increased by	$\frac{14\text{m}}{16\text{m}} \times 100 = 87.5\%$



INCREASING POVERTY  
UNEMPLOYMENT  
RURAL LANDLESSNESS

However, this 87.5% increase in the number of male agricultural labourers is far higher than can be explained by the growth in rural population alone. This is because in the same 10 year period, between 1961-62 and 1971-72, the total rural population increased by only 21.11% as can be seen from the following figures:

In 1961-62 the total rural population was	= 360 million
In 1971-72 the total rural population was	= 436 million
Therefore in 10 years, the total rural population increased by (436m—360m)	= 76 million
In terms of a percentage increase this would mean that in 10 years, the total rural population increased by	$\frac{76m}{360m} \times 100 = 21.11\%$

Thus, there has to be some other explanation for the increase of male agricultural labourers in the rural population. It is this growing number of agricultural labourers for whom agriculture is no longer economical (sufficient to meet basic needs), even though it is their chief source of livelihood. It is this growing number of people who are becoming more and more impoverished (made poorer).

agriculture, it is not the family size that causes poverty. Rather, the work done by children continues to be crucial for the survival of the family, whether the family owns land or not. Actually it is the fact of owning very little or no land and still having to depend on agriculture which causes poverty in rural areas. Thus, people like Rukmini are not poor because they have so many children. On the contrary, they have so many children because they are poor and see no other alternative.



# eight

Radha had just received a letter from her best friend. She was overjoyed to read that Shyama would be coming to spend a week with her. It seemed ages since Radha had spoken freely to anyone. Just imagine, one whole week! How they would chat and chat. There was so much to say!

Over the next few days Radha felt light hearted. Her worries about her work and the village people got pushed aside in her excitement about her friend's visit.

Radha took leave to go and receive her friend. Both she and Chamelibai waited impatiently at the station for the train to arrive. It came at last, 2 hours late and as soon as Radha saw Shyama, there was a confusion of voices and greetings. Happy to see each other they hugged and couldn't decide what to say first!

Chamelibai took charge and herded the two of them towards the bus stop. There'd be enough time to talk later, she said. Thanks to her, the three got back to the dispensary an hour later.

They spent the rest of the day chatting and laughing. Chamelibai cooked special meals for Shyama and in between interrupted the two with her own stories. She didn't want to be left out of all the fun!

Shyama was curious to know everything. She made a thorough inspection of the dispensary and its surroundings. Later Radha and Chamelibai took her to the village. That night Shyama and Radha had a long conversation :

Shyama : You know Radha, you're really lucky. You are working in such a beautiful place. So much peace and quiet, so much greenery. And you know, I really love that road. It looks so lovely going up and down between the fields.

Radha : Yes, I guess it does look lovely. But the fields are not always green. The land lies empty for months and months.

Shyama : Still, I think this place is heavenly. If I were here I'd spend hours every day looking at the sunset.

Radha thought of how she'd stopped noticing such things long ago. Where Shyama saw beauty, she saw poverty. But she didn't say anything and let her friend continue talking.

Shyama : And the women! They look so beautiful in all that jewellery. I wonder how they manage to balance so much water on their heads. Oh, let me see if I can balance a book on my head.

Shyama found a book and tried to walk with it on her head. The book of course fell off and the two burst out laughing.

Shyama : Anyway talking of women, what's it like here? In my hospital we've been doing a lot of sterilizations. What about you? I believe the government is going all out for family planning.

Radha : (Hesitatingly), I started talking about it. An ANM from the PHC also asked me to help her with her family planning targets. But I don't know.

Shyama : What do you mean you don't know? Didn't you see the number of children in the village? Surely, they don't need more? I think that's the whole trouble. There are just too many people. No wonder people in the village are so poor.



Radha : Yes, a lot of people are very poor in the village—but not all of them. Chamelibai told me that the sarpanch has 60 acres of land and even has so many cows. There are some others who also have quite a bit of land.

Shyama : Really, they don't look as if they're so rich. To me they looked more or less like the others.

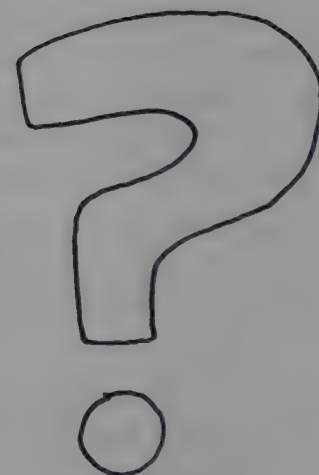
Radha : My dear, you shouldn't go just by the looks of things

Shyama : But these poor people you're talking about. Tell me, don't they have work? I saw so many people just sitting outside their houses. How'll they earn if they don't work?

Radha : Work is very seasonal here. Some have their own land and others work in someone else's fields. They're busy during sowing and harvest time. Then when there is no work in the village many people go to the city to find work.

Shyama : Really? It must be tough for them. Tell me, why do you think people are poor?

Radha : I don't know Shyama. I've been thinking about it too. **I wonder why some of us have so much and others have so little.**





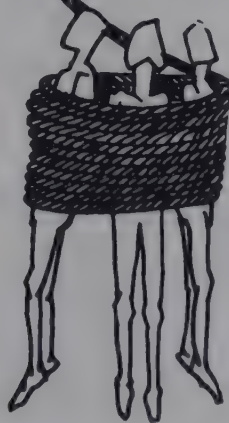
## 8 : Why do some of us have so much and others so little?

**Part A:** What is it that some people have that others don't?

**Part B:** How do the small group of people at the top accumulate wealth?

**Part C:** Can modern farming methods help the poor in rural areas to improve their economic condition?

**Part D:** If exploitation is the cause of poverty then why do people let it continue?



In a world where from birth till death, one constantly sees some people who have more than enough to live a comfortable life, and others who find it difficult to get even enough to eat, it seems that this is the way things always were and will continue to be. Someone has to be at the top and someone at the bottom. Just as some people are more intelligent, hardworking and get ahead of others in life, so also it seems that those who are at the top are there because of their own personal qualities and abilities. And those who

are at the bottom are there because of their own failures.

What is usually not so obvious or thought about is that there is a connection between those who have and those who don't. It is this relationship between those who are at the top and those who are at the bottom that we are going to examine in detail in the four separate parts of this chapter.





## **PART A : What is it that some people have that others don't?**

The answer to this question may seem simple at first. It is obvious that some people have much more money and possessions while others don't have even the basic necessities of life. What is not so obvious however, is that just by this fact of having more wealth, people at the top also have more control over the lives of people at the bottom

The following case study which is a survey of three villages in Muzaffarpur district, Bihar done in 1979-80, shows clearly how a small group of people in the village have complete control over all aspects of life. *This case study is adapted from a socio-economic survey done by Dr. Mangna Nand Jha and Dinesh Sahey, for Centre for Agrarian Research Training and Education, Ghaziabad.*

The three villages that were surveyed in Muzaffarpur district are a part of Mussahari Block. The total number of households in these villages is 729. These households were divided into the seven economic groups given below.

### **Landlords:**

Those who get their land cultivated through share croppers or attached labourers and exercise either direct supervision or through employing agents are classified as landlords.

### **Farmers:**

They include big or middle farmers who are whole time cultivators. They work physically in the field and also use labour from outside the family but they do not go out to work for others.

### **Poor peasants with land:**

They include small/marginal farmers who own bits of land and work on it with their own family labour without using hired labour from outside the family. Often they add to their income by working on other people's land as share croppers or labourers or in other occupations.

### **Poor peasants without land :**

These peasants work on other people's lands either as agricultural labourers (attached or casual) or as share croppers or partly as labourers and partly as share croppers.

### **Non-agricultural labourers :**

Those who have no direct relation to land and earn their livelihood as non-agricultural wage labourers.

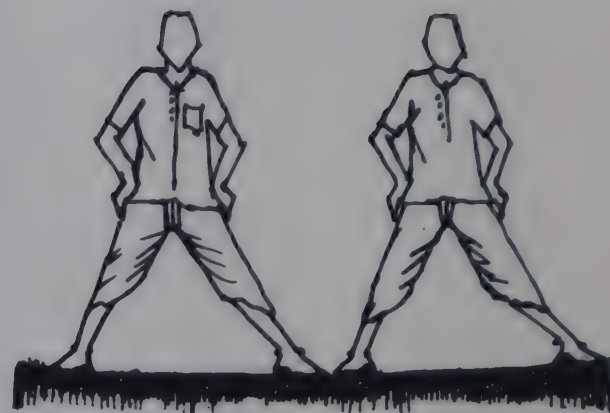
### **Rural Artisans**

### **Others :**

These include people engaged in services and trade (shopkeepers etc.).

The table shows that poor peasants are the largest group i.e. 64.9%. Farmers and landlords together account for 22.5% of all the households. The population of these villages is 4072. Of this adult males are 1256, adult females are 1171 and children (14 years and below) are 1645. The average household size is 5.58 persons. However landlords and farmers have larger families with an average of 6.87 members while the four lower economic groups (poor peasants, non-agricultural labourers, artisans and others) have a family size below the average with only 5.1 members. Similarly, an average





number of children in the first two categories is 3.1 and that in the lower four economic groups is 2.02.

#### Distribution of households by economic groups

Economic group	Total no. of households	% of households
Landlords	75	10.3
Farmers	88	12.2
Poor peasants with land	193	26.5
Poor peasants without land	280	38.4
Non-agricultural labourers	32	4.3
Artisans	36	4.9
Others	25	3.4
	729	100

64.9%

Miscellaneous — trees groves etc.

155.00 acres

Homestead and other uncultivable lands

82.00 acres

There is hardly any scope for increasing the area for cultivation. Annual produce can be increased only by growing more than one crop each year on the land being cultivated.

#### Cropping pattern

The main crops grown in this area are paddy, wheat and maize. Some cash crops like sugarcane, tobacco, turmeric and chillies are also grown on a small scale. The poor peasants have not been able to grow more crops due to the lack of adequate irrigation facilities.

#### Irrigation facilities

The main sources of irrigation are tubewells, tanks, wells and river. Presently 444 acres (27.67%) of the land owned by landlords and farmers are irrigated as compared to only 31 acres (17.5%) belonging to the poor peasants.

Altogether there are 34 pumping sets in the villages, out of which 33 are owned by the two upper economic groups (landlords and farmers). The poor peasant households own between them only one pumpset.

### Agricultural Situation

#### Land utilization pattern

The total geographical area of the three villages is about 2132.44 acres, of which about 1783.51 acres (i.e. 83.5% of the total area) are cultivated. The land utilization pattern in these three villages is as follows :

Area irrigated	475.34 acres
Area unirrigated	1307.17 acres
Area left fallow (land that is left unused for some time)	45.00 acres
Cultivable waste	67.00 acres

#### Land holding

The distribution of land among the different economic groups can be seen from the following table:





**Distribution of land**

**Distribution of Livestock**

Economic groups	Households		Land area			Distribution of Livestock						
	No.	%	Area owned in acres	Area as a % of total land	Average size of holding in acres	No. of households	Buffaloes	Cows	Bullocks	Other animals	Total animals	No. of animals per household
Landlords	75	10.3	1112.27	62.36%	14.83	75	53	51	86	39	229	3.05
Farmers	88	12.1	493.70	27.68%	5.61	88	71	34	96	34	235	2.67
Poor peasants with land	193	26.5	177.54	9.95%	0.91	193	73	92	89	226	480	2.48
Poor peasants without land	280	38.4				280	11	33	9	66	119	0.42
Non-agricultural labourers	32	4.4				32	2	8	—	15	25	0.78
Artisans	36	4.9				36	2	6	—	24	32	0.88
Others	25	3.4				25	1	3	—	11	15	0.60
	729	100	1783.51	99.99%	2.44	729	213	227	280	415	1135	

The landlords who form only 10.3% of the total households control 62.3% of the land.

On the other hand the poor peasants who form 64.9% of the households own only 9.9% land.

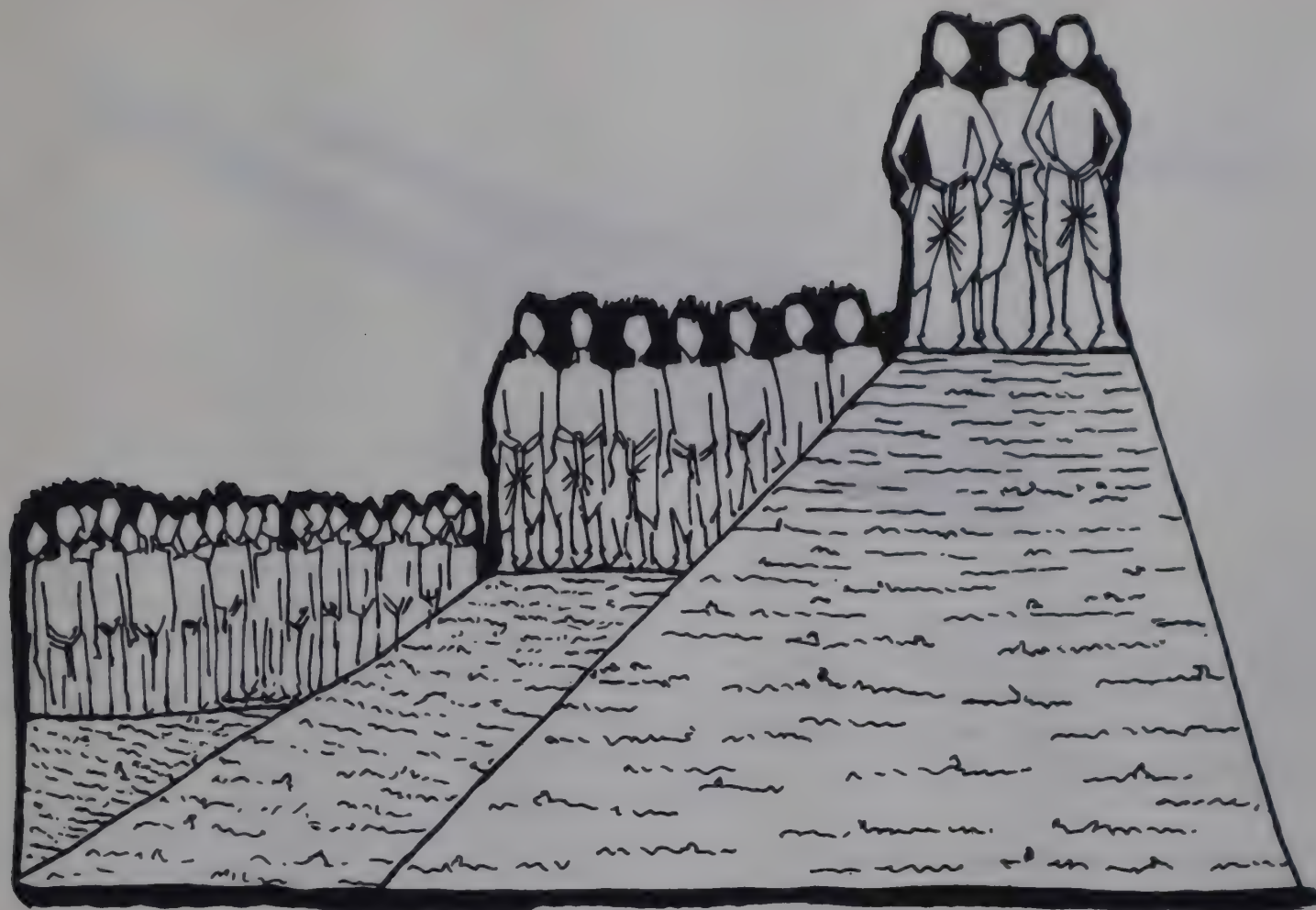
62 Over 51% households do not own any land at all.

### Livestock

Cows and buffaloes are popular livestock in this area. Goat rearing is common among the poorer households.

Even though most of the families own some animals or the other, as can be seen from the table, landlords have the largest number of animals per household.





## Social situation

### Caste structure

A majority of the people in these villages are Hindus (717 households). Only 12 households are Muslim. There are about 15 Jatis (castes) in the villages and the number of households belonging to the different castes is given below (Muslims have been included in the intermediate castes.)

#### Distribution of households according to caste.

Caste	No. of households	% of households
High castes (Brahmins, Bhumihars, Kayasthas)	141	19.35
Intermediate castes (Yadav, Mallah, Dhanuk, Nai, Dhobi, Teli, Halwai, Lohar, Mali, Kumhar)	427	58.57
Lower castes (Paswan, Chamar)	161	22.08
	729	100

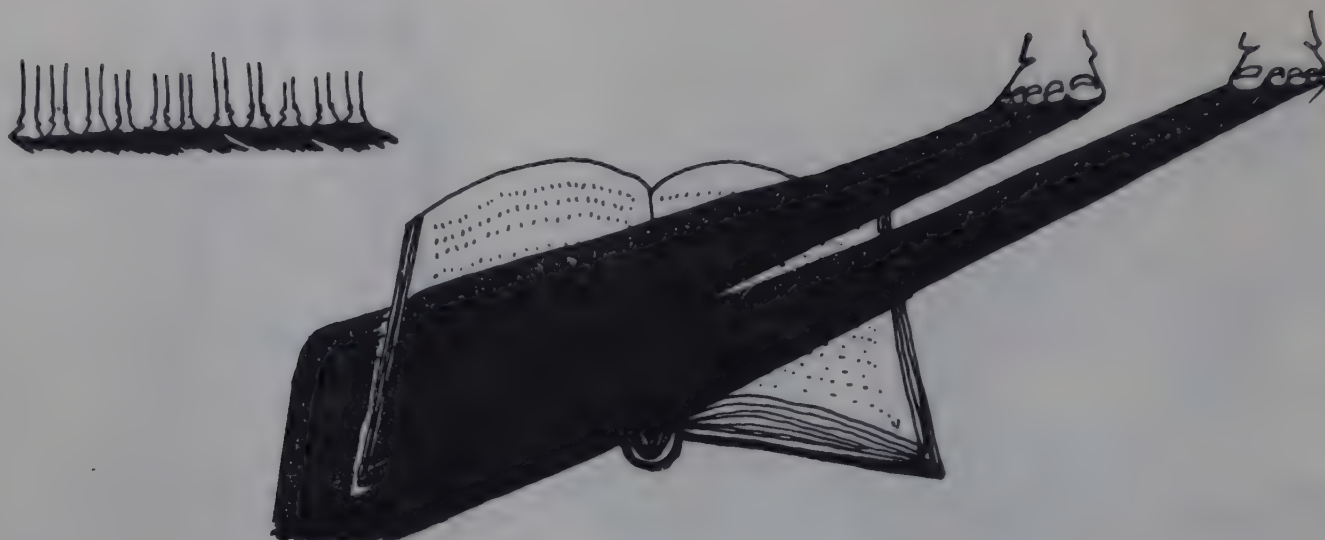
## Land holding and caste

Most of the land i.e. 78.9% is owned by the high castes. The lower castes own only 1.8% of the land. It is important to note that there is not one household in the upper caste that does not own land. In fact most of households in the upper caste belong to the landlords group.

#### Distribution of land according to caste groups

Caste	No. of households	% of households	% land owned by each caste group
High	141	19.35	78.9
Inter	427	58.57	18.5
Lower	161	22.08	1.8
	729	100	100





## Education

Educational facilities such as upper primary schools, middle schools and high schools are available closeby. In spite of this, 82.3% of the total population in the age group of 6 years and above is illiterate. Illiteracy among females is higher still, i.e. 93.9%.

## Literacy according to economic groups

This information was collected from 149 households

i.e. a sample of a little more than 20%. If one takes the total number of literates in the sample and finds out the economic group to which they belong, the following pattern emerges. *Literates include all persons above the age of 6 years who are in school or have attended school in the past.*

The maximum number of literates i.e. 58.19% are from among the landlords. However if one looks at the people in the landlords' group alone we find that 73.2% of them are literate.

## Literacy in the sample according to economic groups

Economic group	Total no. of people in the sample	No. of literates	No. of illiterates	Literates in each economic group as a % of	
				the total no. of people in each economic group	the total no. of literates in the sample
Landlords	97	71	26	73.2	58.19
Farmers	89	18	71	20.2	14.75
Poor peasants (with or without land)	416	26	390	6.2	21.30
Non-agricultural labourers	27	1	26	3.7	0.80
Artisans	37	2	35	5.4	1.60
Others	23	4	19	17.4	3.20
64 Total	689	122	567	—	—



## OCCUPATION AND INCOME

Economic groups	OCCUPATION				ANNUAL INCOME		EMPLOYMENT
	Farmer (works on own land)	Farmer (works as share cropper)	Labourer on others land	Labourer outside agriculture	From Agriculture (in Rs.)	From Non-agricultural source (in Rs.)	
Landlords	DOES NOT WORK HIMSELF				7126.0	3813.3	Does not work
Farmers	Yes	Yes	No	No	5893.8	363.8	fully employed
Poor peasants with land	Yes	Yes Sometimes	Yes	Yes	2151.7	727.3	partially unemployed
Poor peasants without land	No	Yes	Yes	Yes	1353.8	757.2	partially unemployed
Non-agricultural workers	No	No	No	Yes	35.7	1880.0	partially employed
Artisans	WORK AT THEIR OWN TRADE				—	2700.0	fully employed
Others					120.0	3727.0	partially unemployed

Note : Income from non-agricultural sources includes income from livestock.

### Occupation, employment and income

Since farming is the main occupation in the villages, income depends mainly on (a) land ownership (b) the possibility of finding work on land. The table shows the income and extent of employment available to the different economic groups.

Basically, land ownership is making a substantial difference in the incomes of families dependent on agriculture. Also the peasant group as a whole remains unemployed for part of the year inspite of their attempts at finding employment in non-agricultural work as well.





From all the information we have so far about the three surveyed villages, it is possible to understand what some people have that others don't.



A small percentage of the same households (landlords and farmers) have the largest share of land, irrigation facilities and livestock i.e. they have economic wealth. They also belong to the upper castes and are the most educated in the village i.e. they have social status. As a result of this they have the greatest security of employment and income. It is they who are able to support and actually have the largest families. This is an added resource in terms of having potential full time workers within the family. It is this small group of landlords and farmers who are at the top in every aspect of life.



On the other hand, a clear majority of people (peasants and non-agricultural labourers) have the smallest share of all the resources and benefits in the villages. Their only resource is their ability to work (labour power) and this too is underutilized because they have the least opportunity of finding more employment. They are the ones who are at the bottom in every aspect of life.

## How do the different groups relate to each other?

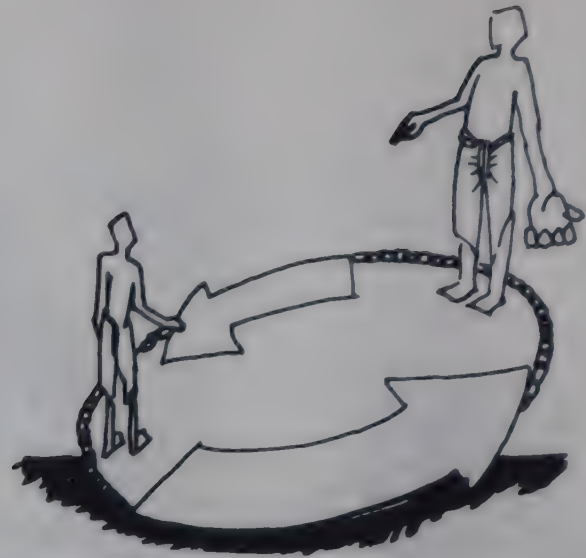
### Interaction in cultivation

The landlords do not work physically in the fields themselves. They cultivate most of their land by hiring labourers from the village. Only 21 landlords supervise the work of these labourers themselves. The remaining 54 landlords employ someone else for even this work. Only 16.5% of their land is leased out for share cropping to a farmer or a poor peasant.

Under the system of share cropping the landlord continues to **own** the land. The share cropper does all the work and spends all the money necessary to grow the crops. After the harvest, the share cropper gives 50% of whatever is produced to the landlord. From the remaining 50% he has to pay all the expenses made on the land. Any credit (loans) taken from the landlord for use on the land (money for seeds, fertilizers, electricity, diesel etc) is also returned from the remaining amount. This means that a share cropper usually gets much less than 50% of the final harvest as his real income. This is in spite of having done all the work to produce the crop. In Bihar, according to the law, the landlord should get only 25% of the produce though in actual practice 50% has to be given. Thus share cropping as practiced is of greater advantage to the landowners than to the share cropper.

The other system by which big landowners (landlords and farmers) cultivate their land is by employing labourers who come from the group of poor peasants with or without land. Among these labourers, there are two major groups i.e. attached labourers and daily wage labourers. Attached labourers get a small wage





and also a small plot of land on which the labourers can grow some food for themselves. This creates a sort of bonded labour. Daily wage labourers get a comparatively better wage but no plot of land for their own use. Some labourers prefer to work as attached labourers as it gives them an access to land.

If we look at the different economic groups in the three villages, landlords are the richest because they own most of the land. From what we have seen of their interaction with the other groups, landlords also have a lot of power over people. They have the power to decide what share must be given to them by the share cropper. They have the power to decide what wages should be given to labourers working for them.

Compared to the landlords, farmers own less land and are less wealthy. Like the landlords they too hire labourers to work on their fields. Because of this, they are seen as being powerful by the labourers. However, farmers who take land from the landlords for share cropping are as powerless as anybody else in deciding the share of the crop to be given to the landlord.

Poor peasants, even if they have land, have no power over anybody else because they do not hire any labourers. As share croppers and labourers, they are powerless in their interaction with landlords and farmers.

### Interaction in lending and borrowing

Landlords are also moneylenders in the village. Over one-third of the households have taken loans from them, the majority being poor peasant households. Of these loans, 63.6% are taken by the poor peasants for consumption, i.e. to meet expenses for basic necessities such as food, clothes, medicines etc. Farmers too take loans from the landlords but these are for im-

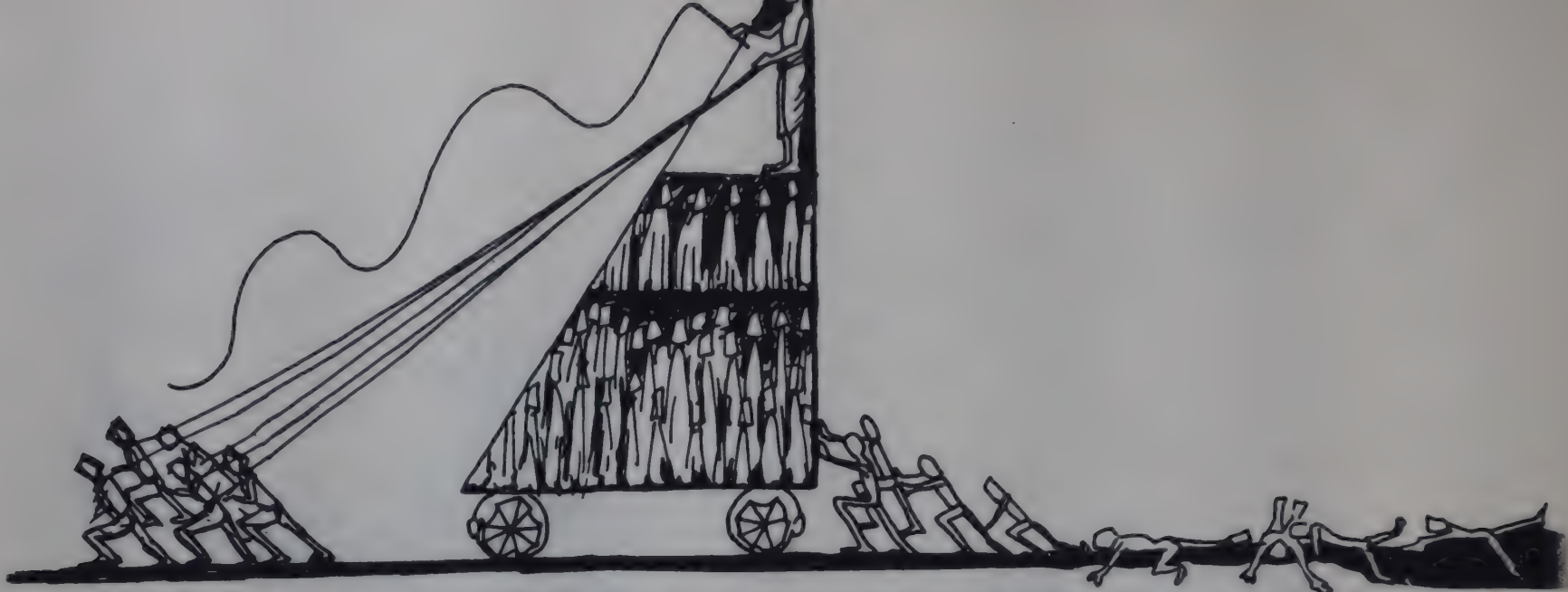
proving their land or for performing ceremonies. Farmers do not need loans for consumption. The rate of interest is usually 36% but can be anything upto 50% (these rates of interest seem low and it is possible that the actual interest charged was not told by the land lord). Since landlords are the main money lenders in the village, they once again have power over people. They have the power to decide the rates of interest and how soon the loan should be repaid.

### Social interaction

All three villages come under one gram panchayat. The panchayat has two wings — a judicial council and an executive council. The judicial council is responsible for settlement of disputes (disagreements, quarrels) and the person in charge is called the Sarpanch. The executive council is responsible for civic and development functions. The person in charge of this wing is called the Mukhia. In this panchayat, the Sarpanch belongs to a rich Muslim family while the Mukhia is the richest Bhumihar (upper caste landlord). Both the wings of the panchayat have three members from the intermediate castes and two from among Harijans. When these members were interviewed, they said that they had not been asked to attend any meeting of the two wings and did not know if any meetings had been held.

There was a general complaint from these sections that in elections of the Sarpanch and Mukhia, they were prevented from exercising their right to vote. The offices of the Sarpanch and Mukhia are located in their homes. The panchayat has no office building of its own. Regarding development work, it was reported during interviews that several years ago the previous panchayat had carried out the construction of some village roads and deepening of a tank, but the present





panchayat had not done any work. The principal work now being performed by the panchayat is the issuing of certificates of caste, income etc. or giving recommendations for ration cards. (It is important to note that panchayats receive funds every year for carrying out development work. One does not know what happens to this money since no work is done.)

Three co-operative societies had been set up in the area. At the time of the survey none of them were functioning. From among the households interviewed only 3 households were members of the co-operative. All three were landlords. Previously there were nine members (all landlords) but five of them resigned due to conflicts among themselves. There is no member of the co-operative from among the farmers, poor peasants, or rural artisans.

The government had provided some loans for agricultural purposes at only 9% rate of interest. All these loans have been taken by landlords. No households from other groups has benefited from these loans.

Once again, we find that it is upper caste landlords who are able to exercise power over others in the village. It is the landlords who are at the head of the panchayat. It is the landlords who are members of the co-operative. It is the landlords who are able to make use of government facilities.

From what we have seen about the interactions among people in the three surveyed villages, it is possible to understand **what else** some people have that others don't.

A small percentage of the same households (landlords) have **POWER** over the lives of

others. They have the power to **decide** the wages of agricultural labourers; they have the power to **decide** the rates of interest to be charged on loans, i.e. they have **political power**.

This power to decide, comes from the fact that landlords **possess** the most **wealth** in the villages, i.e. they have economic power.

The same group of landlords also have social status because they belong to the higher castes and are the most educated. In addition, they are at the head of the panchayat, are the members of the co-operatives and the only ones who make use of government facilities, i.e. they have **social power**.

The majority of the people (peasants and non-agricultural labourers) are the most powerless to **decide** matters that are crucial for their survival. Nor do they **possess wealth** or **social status**. They are the most powerless group in the villages.

The above case study gives a clear picture of the existing divisions among people in rural areas — divisions in economic status, social status and power. It also describes the unequal interactions that exist among people. It shows clearly that a small percentage of the same people are at the top in every aspect of life while a large majority of the others are at the bottom in every aspect.

If one looks at the country as a whole, we find a similar pattern. A small percentage of the country's population is at the top while a majority of the people are at the bottom.



## PART B : How do the small group of people at the top accumulate wealth?

From the previous case study we know that a small group of landlords and farmers are at the top because of their wealth, caste and education. While each of these factors gives them a certain position in the village, it is basically their wealth and the power which comes from this wealth that gives them control over the lives of others. Even if a wealthy landlord were illiterate and of a lower caste, he would still be in a position to set terms and conditions for share cropping, rates of interest and wages. This is because peasants and labourers are dependent upon landlords for their very existence. They have no option but to agree to the terms and conditions set by landlords.

The way by which those at the top accumulate wealth becomes clear if we look at the process of agricultural production in Mussahari block of Muzaffarpur district.

Paddy is one of the main crops grown in this area. According to information collected in March 1984 from farmers in the area, the following inputs are required for paddy cultivation. *Information regarding agricultural practices was collected from farmers from different economic groups. The information given in this chapter relates to farming practices adopted by share croppers and small peasants.*

To grow one crop of paddy, **sufficient water** is required at four critical times. If rains are good, additional water is needed through irrigation only once. Usually however, people need to irrigate their fields two times. Those who do not have their own well can get water from a neighbour who owns a pumpset by making a payment of Rs. 14 per hour. This payment includes the

cost of diesel to run the pump, the charges for using the pump and the cost of water. On an average, the pump has to be run for 10 hours to irrigate one acre of level land. The cost of irrigating the land twice therefore comes to Rs. 280 per acre (10 hours  $\times$  Rs. 14  $\times$  2 times).

Farmers in the area usually use a local variety of paddy as **seed**. About 20 kg. of seed is used per acre to sow the land.

The normal practice in this area is to use a combination of natural **fertilizer** (manure) and chemical fertilizer. Usually about 10 cartloads of natural fertilizer and 55 kg. of chemical fertilizer are used per acre. The cost of this fertilizer comes to about Rs. 290 per acre.

Thus, according to the farmers, paddy cultivation on land of average quality, requires the following inputs per acre :

### Inputs per acre for growing one crop of paddy under average conditions

Item	money	grain
Irrigation	Rs. 280.00	—
Seed	—	20 Kg.
Fertilizer	Rs. 290.00	
Total expenses	Rs. 570.00	20 kg.

It therefore **costs** a farmer Rs. 570+20 kg. of seed per acre to cultivate one crop of paddy.

Under average conditions, at harvest time, the farmers are able to get a **yield** of about 1600 kg. of paddy per acre.

If they take out their expenses for producing this crop, they are left with a **total income** of 1295 kg. of paddy. This can be calculated as follows :





Paddy usually sells at a price of Rs. 2 per kg.

If a farmer were to sell part of his grain to get Rs. 570 (his expenses) he would need to sell  $570 \div 2 = 285$  kg of paddy.

He also uses 20 kg. paddy as seed.

Total expenses therefore come to  $285 \text{ kg} + 20 \text{ kg} = 305$  kg of paddy.

From the harvest he gets a total of 1600 kg. of paddy.

**Total income per acre is :**  $1600 \text{ kg} - 305 \text{ kg} = 1295 \text{ kg}$  of paddy.

The one factor that has not been considered so far is the **human labour** that has been spent in growing the crop. Even if all the inputs necessary are present on the land, without human effort (labour) a crop cannot be cultivated. Labour would have to be spent on ploughing, transplanting, weeding, threshing etc. This labour is the most crucial input for cultivation.

According to the farmers in this area, to cultivate one acre of paddy, each of the agricultural tasks require the following amount of labour :

Task	No. of man days required to complete the task
Ploughing	10
Transplanting	15
Weeding	20
Harvesting and threshing	10
<b>Total man days</b>	<b>55</b>

*Man day means the amount of work that can be done on an average by one man in one working day. 10 man days means the amount of work that can be done by one man in 10 days, or 10 men in one day, or 5 men in 2 days.*

Thus, a total of 55 man days of labour are required to cultivate one crop of paddy. The people who have worked to produce this crop need to be compensated for their labour. After taking care of all other expenses, 1295 kg of paddy is left from the harvest. How much of this paddy should go to the people who have done all the work?

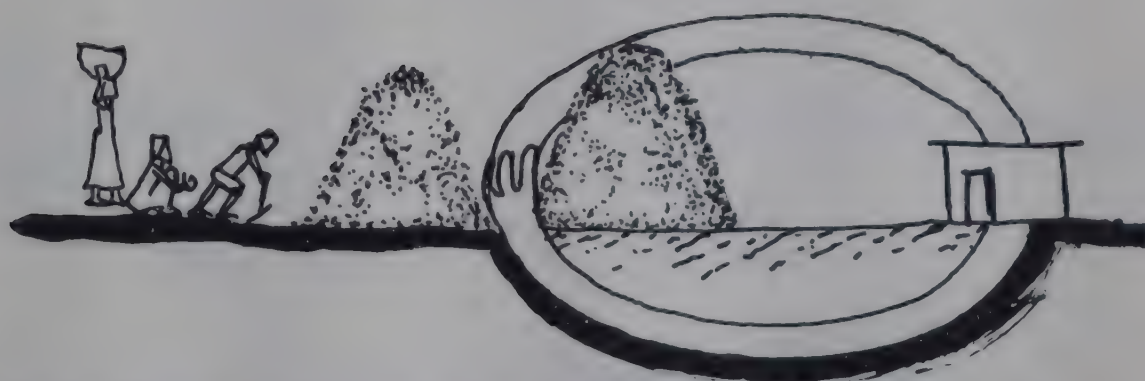
In actual practice, the people who put in all the work get compensated as follows :

If a large family **owns** this one acre of land and does all the 55 man days of work using family labour, the family keeps the **1295 kg of paddy**.

If the **same** large family **share crops** this one acre of land and does all the 55 man days of work using family labour, the family gets **495 kg of paddy**. (According to the terms of share cropping, half the harvest has to go to the landlord i.e. half of  $1600 \text{ kg} = 800 \text{ kg}$ . From the remaining 800 kg the share cropper has to pay all the expenses of cultivating the crop i.e. 305 kg. The rest he keeps for himself i.e.  $800 \text{ kg} - 305 \text{ kg} = 495 \text{ kg}$ ).

If the **same** large family works as **agricultural labourers** on this one acre of land and does all the 55 man days of work using family labour, the family gets **297.5 kg** of





paddy. This is calculated according to the wages given for the different agricultural tasks. According to the farmers, in this area, the wages are as in the table :

Thus, the total wages given to labourers for doing all the work to cultivate one acre of paddy is Rs. 540.00 + 27.5 kg paddy. If we convert the money into paddy we get 270 kg paddy. (one kg paddy = Rs. 2). The total wages in paddy are therefore 270 kg + 27.5 kg = 297.5 kg.

From the above discussion it is clear that in actual practice, the value of 55 man days of work is not the same. A different value is placed on the same amount of work, depending on whether the workers own the land or not.

In the case of a share cropper, the landlord is getting 800 kg (half of the produce) without having done any work to produce the crop. He is taking this amount just because he owns the land. In the case of the agricultural labourers, the landlord is getting 997.5 kg (total

income minus the wages), once again not having done any work to produce the crop.

Thus, the landlords by the mere fact of ownership get 60-75% of the produce. In taking this 60-75% of the produce, landlords are depriving labourers of their rightful share of the produce. Landowners are thus accumulating wealth by depriving labourers of their rightful share. In other words, landowners are accumulating wealth through exploitation.

**If the family owns the land and does all the work, they get 100% of the produce.**

**If the family share crops, they get 38% and the landlord gets more than 60% of the produce.**

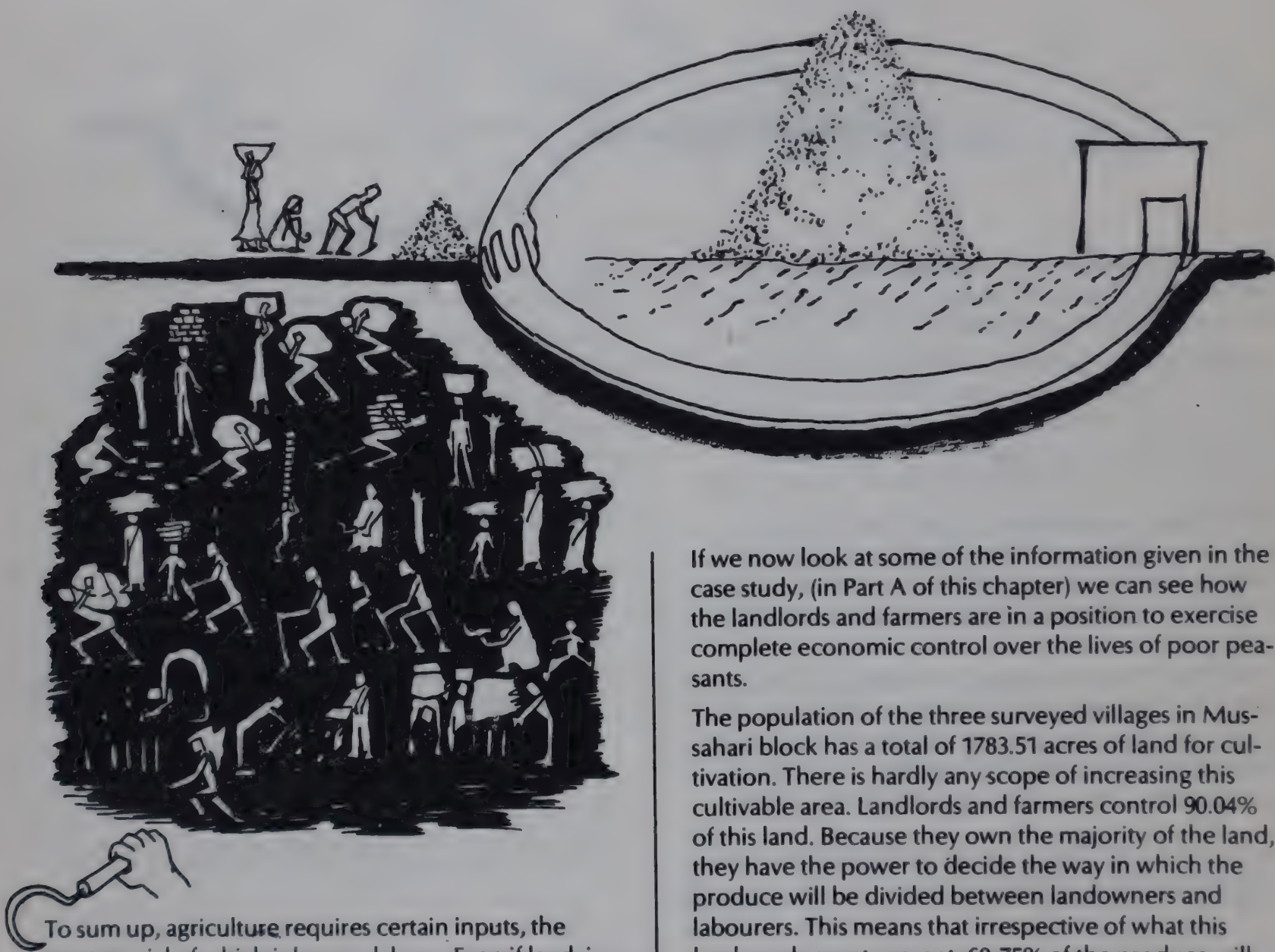
**If the family works as agricultural labourers, they get only 23%, while the landlord gets more than 75% of the produce.**

#### Wages for labour required to cultivate one acre of paddy

Task	Man days	Wage rate per man day		Total wages for each task	
		money Rs.	grain	money Rs.	grain
Ploughing	10	15.00	½ kg	150.00	5 kg
Transplanting	15	10.00	½ kg	150.00	7.5 kg
Weeding	20	7.00	½ kg	140.00	10 kg
Harvesting and threshing	10	10.00	½ kg	100.00	5 kg
<b>Total</b>	<b>55</b>			<b>540.00</b>	<b>27.5 kg</b>

Each person who works is given a daily wage and ½ kg of grain (in the form of cooked food).





To sum up, agriculture requires certain inputs, the most crucial of which is human labour. Even if land, irrigation, fertilizers, seeds and tools are available, in themselves they are not sufficient to produce food. Only when human labour is spent in using these materials can a crop be grown. It is this labour which produces an income.

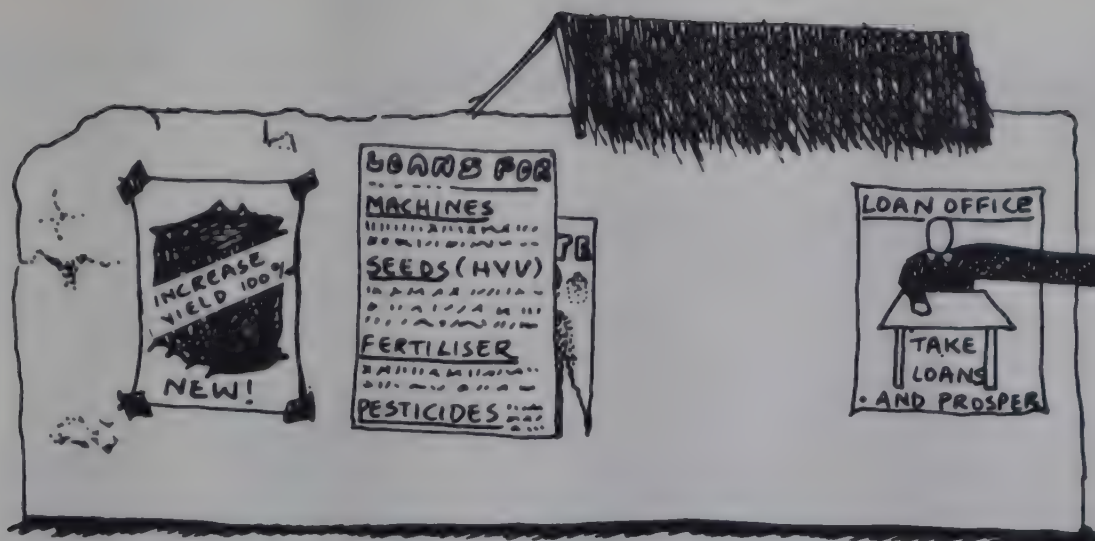
If this income were to go to the people who had worked to produce the crop, then it would not be possible for landowners to accumulate wealth. The wealth of the landowners is basically accumulated through exploitation because, in keeping a large share of the produce for themselves, landowners deprive labourers of what is rightfully due to them.

If we now look at some of the information given in the case study, (in Part A of this chapter) we can see how the landlords and farmers are in a position to exercise complete economic control over the lives of poor peasants.

The population of the three surveyed villages in Musahari block has a total of 1783.51 acres of land for cultivation. There is hardly any scope of increasing this cultivable area. Landlords and farmers control 90.04% of this land. Because they own the majority of the land, they have the power to decide the way in which the produce will be divided between landowners and labourers. This means that irrespective of what this land produces at present, 60-75% of the produce will automatically go to the landowners.

Tomorrow, if the landlords decide to take 90% of the produce, the labourers would have no option but to divide the remaining 10% among themselves. As long as the poor peasants are dependent on landowners for their livelihood, they are forced to agree to any terms set by the landowners. The landowners are thus in a position to determine the level of poverty of the peasants. Since landowners have accumulated wealth through a process of exploitation, it is exploitation that is really causing and determining the level of poverty of the peasants.





## PART C : Can modern farming methods help poor people in rural areas to improve their economic condition?

The adoption of modern methods of farming i.e. agricultural technology, is often upheld as an effective way by which poverty can be greatly reduced. In the rural context this implies that technology will increase the total productivity within agriculture. Since more will be produced, each person engaged in agriculture will get a proportionately larger amount of produce. Further it is believed that even peasants with small amounts of land will be able to increase their earnings by adopting modern farming methods. This chapter explains what is meant by agricultural technology and looks at the impact it has on farmers from the different economic groups.

### What is agricultural technology?

Technology in agriculture consists of:

- **Machines** like harvestors, tractors, threshers etc. which can do more work faster and more efficiently than human beings.
- **Improved seeds** (High yielding varieties, HYV's) which are capable of giving a better quality and higher quantity of grain per acre.
- **Fertilizers** which can improve the quality of the soil.
- **Pesticides** which help to control destruction of crops by pests.
- **Irrigation** facilities which can provide sufficient water wherever required.

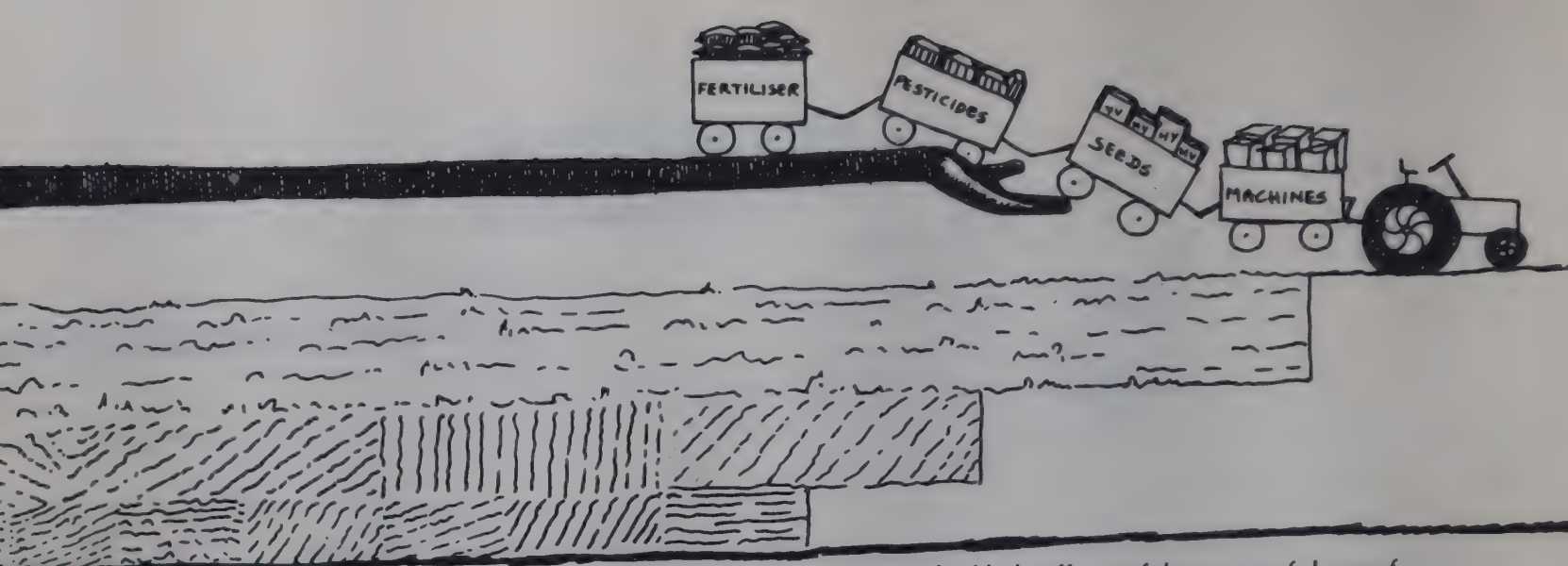
Each of these technologies is useful by itself to a farmer. But the maximum benefit is achieved only when they are used in the recommended combination and not singly. HYV seeds for example, have been developed in laboratories under the best possible conditions of soil and water. In actual farming, these seeds give the best results only when identical conditions of soil and water are created. This means that a farmer would have to use fertilizer and irrigation facilities in the right proportion, to create the necessary ideal conditions. The fact that these seeds are developed in the laboratories also means that they are not naturally resistant to pests, unlike the local varieties of seed. Use of pesticides therefore becomes essential also.

Similarly, machines were developed in countries where workers were scarce and needed for factories.

For people in these countries, ideal farming conditions meant getting the work done in a short period of time using as few people as possible. Separate machines were therefore developed to carry out each of the agricultural tasks. Since these machines are expensive, it is beneficial to use them only when a large amount of work needs to be done. The larger the plot of land, the greater the produce from it, the more the benefit from the machines.

Since HYV seeds along with irrigation, fertilizer and pesticide are intended to increase productivity of land and since machines are intended to get all the agricultural work done faster and more efficiently than human beings, the maximum benefit will come to a farmer who has a large plot of land and is able to use all of these technologies together.





### Who is able to use agricultural technology?

If these technologies had been introduced into the three surveyed villages in Mussahari block (previous case study), would everyone have had an equal chance of using and benefiting from them?

In these three villages:

- who were the panchayat members?
- were panchayat meetings called?
- if a village meeting was called to explain these technologies who would have attended the meeting?
- in the meeting which group of people were likely to ask questions to get their doubts cleared?
- which people were most likely to approach the government workers and ask for more information?
- who is most likely to be able to spend the necessary money to use the new technology?
- who is most likely to make use of government loans?

In order to get the maximum benefit from these technologies:

- who has large plots of land?
- who has irrigation facilities?
- who has the agricultural machines?

In case the new technology fails.

- who is in a better position to withstand the loss?

What are the likely effects of the successful use of technology on:

- the landlords and farmers as a group?
- poor peasants with and without land as a group?

The reader can answer these questions by going through the information given about the three villages in the case study (Part A of this chapter).

### Impact of the technologies

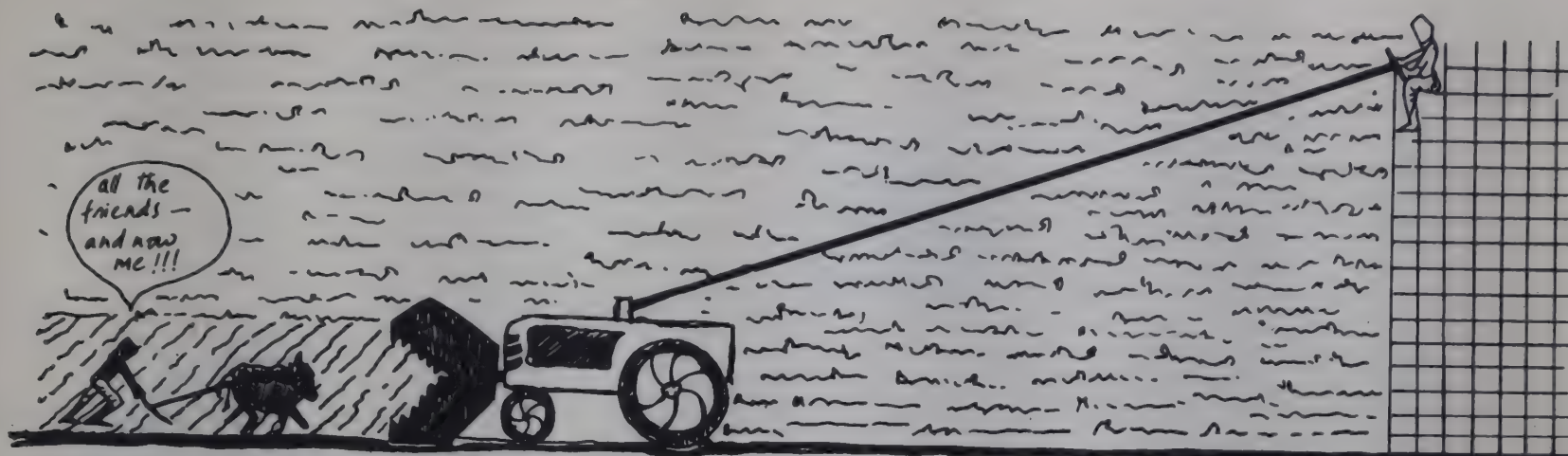
These agricultural technologies have been in use in our country for the last 20 years. An analysis of the results show that they were most useful in increasing production of wheat and paddy. The use of HYV seeds, reduced the time interval between sowing and harvesting. As a result more crops could be grown on the same land each year.

The people who benefited most were big landowners who already had money to spend on the new technology or could get loans easily because of the land they owned. It is they who were able to get sufficient water through irrigation, buy seeds, use fertilizers and pesticides in the right proportions and use machines. They were able to use all the technologies available in the right combinations. Introduction of agricultural technologies into the villages affected people from the different economic groups in the following way.

#### Landlords

They were successfully able to use the complete set of technologies and thereby increase their income tremendously. The result of this was that they were able to purchase more land, grow two or three crops per year, grow those crops which sold at the highest prices in the market.





This was because they did not have to worry about growing food for themselves. They could buy food from the market even if this was slightly costlier than producing it themselves. This resulted in a change in the crops grown in the area as a whole. For instance, Uttar Pradesh was known as a rice and wheat growing area. It is now well known for the sugarcane produced.

### Farmers

This category of people were able to use the technologies to the extent of their land holdings. Their incomes increased proportionately. A study in Punjab revealed that with the use of technology farms having 20-35 acres expanded only 4% while those having 100-150 acres increased by 40%. Most of the increase in farm size took place through purchase of land.

### Share croppers and tenants

Since greater income could be got from land now, the price of land naturally went higher. Landlords who allowed tenants to cultivate their lands now increased the rent charged. Those who were unable to pay the raised rents were forcibly evicted (thrown out). Landlords also started withdrawing the land which they had previously given out for share cropping because they found it more profitable to cultivate it themselves. Tenants and share croppers were from the group of farmers, peasants with small bits of land and peasants without land. These changes affected the landless peasants or those with small plots the most. Farmers were also affected but only to the extent that they depended on share cropping for adding to their income from their own land. The incomes of each of the above groups therefore decreased as a result of technology.

### Peasants with small amounts of land (2-3 acres)

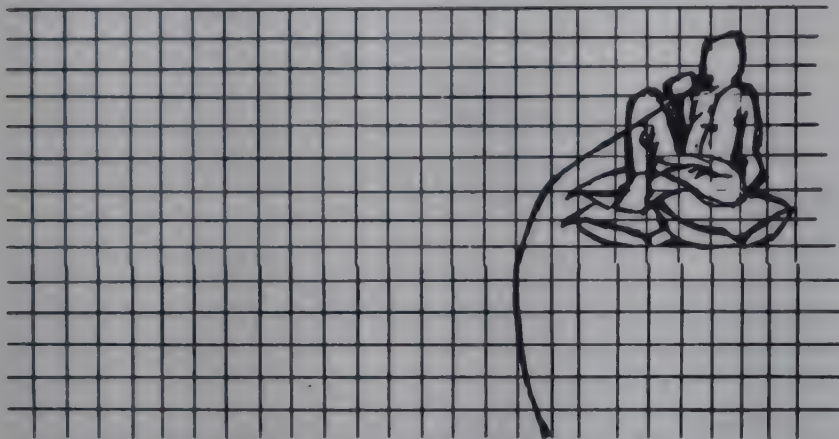
These peasants managed to increase the amount of produce per acre by using small quantities of fertilizers. This gain however did not leave them with enough extra money to make any improvements on their land. This group of peasants were also among those who had taken loans from landlords for consumption. The landlords were now specially keen and in a position to take away their small land holdings in repayment of past debts, since the value of land had gone up. As a result a number of people from this group became landless labourers.

From the above analysis of the effect of technology in the country, it is clear that two things happened. One, the incomes of the people at the top (landlords and big farmers) increased greatly because of technology while the incomes of the people at the bottom decreased as a result of technology. Two, the disparity between people at the top and bottom (which was already large before technology was introduced) became much larger. The rich got richer and the poor became poorer.

The landlords became richer because they were in a position to purchase the technology with the wealth they had accumulated in the past. As we saw earlier, this wealth was accumulated through exploiting labourers. It is this exploitation therefore which made it possible for landlords to further increase their incomes through technology.

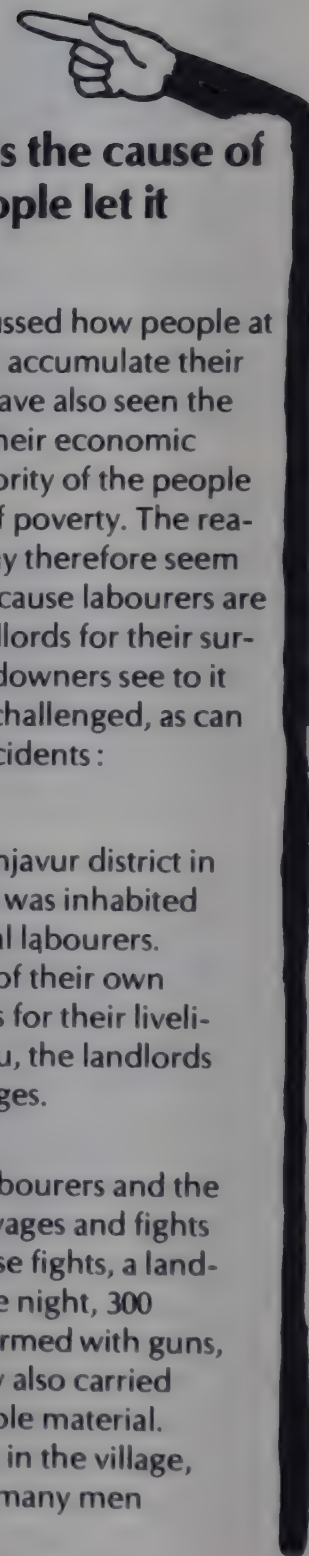
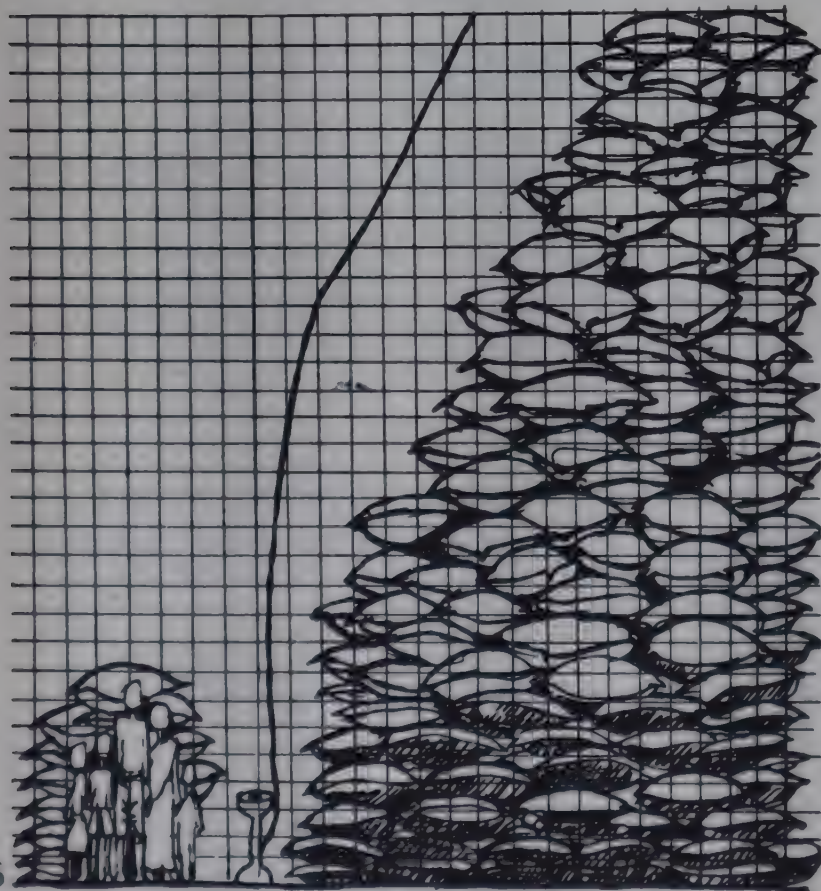
The small farmers (who also worked as share croppers on the land owned by landlords and big farmers) were exploited even before technology was introduced.





However, with the introduction of technology in the villages, many of them lost even the little<sup>2</sup> land they previously owned. They became even more dependent on the landlords for their livelihood.

Thus, even when a new opportunity (like technology) which can potentially improve the standard of living of everybody is introduced, everyone in a village does not have an equal chance to benefit from it. In fact, the disparities which exist among people because of exploitation only become greater because a new opportunity benefits the small group of people at the top and actually harms the majority at the bottom.



## **PART D : If exploitation is the cause of poverty then why do people let it continue?**

So far in this chapter we have discussed how people at the top (landlords and big farmers) accumulate their wealth through exploitation. We have also seen the way in which these landlords use their economic power to control the lives of a majority of the people and in fact, determine their level of poverty. The reason why exploitation continues may therefore seem obvious. Exploitation continues because labourers are completely dependent on the landlords for their survival. It continues also because landowners see to it that their economic control is not challenged, as can be seen from the following true incidents :

Kilavenmani is a village in Thanjavur district in Tamil Nadu. Some years ago it was inhabited mostly by low caste agricultural labourers. These people owned no land of their own and depended upon landlords for their livelihood. As is usual in Tamil Nadu, the landlords lived in the neighbouring villages.

Disputes arose between the labourers and the landlords on the question of wages and fights often broke out. In one of these fights, a landlord got killed. In revenge, one night, 300 landlords came to the village armed with guns, rifles and other weapons. They also carried kerosene and other inflammable material. They began attacking the men in the village, but on hearing the rifle shots, many men succeeded in running away.



The women and children who could not escape took shelter in a hut. The landlords bolted the door of this hut and poured kerosene over it. They then set the hut on fire and burned to death all those who were inside.

In this incident the landlords murdered 44 persons (27 children, 14 women and 3 men) to avenge the death of one landlord. They also burned 28 huts to the ground. Kilavenmani still exists as a ghost village, in which no one lives any more. The landlords who were accused of this murder have been acquitted (set free) by the court of justice, the Madras High Court.

Ref: adapted from an extract, "Face to Face", quoted in **Readings on Poverty, Politics and Development**, edited by Kamla Bhasin and Vimala R. FAO, 1980.

Some years ago the Bihar government had acquired 3 acres and 66 decimals of land belonging to three landlords of Banta Rampur village of Monghyr district, after paying them full compensation, in order to resettle some Harijans. The landlords had been harassing the Harijans since they settled on this land in 1975. On January 22, 1981, the landlords burnt to ashes the huts of these 122 Harijans. The sub-divisional officer and the deputy superintendent of police were present when this crime was committed.

Ref. **How**, Vol 4, No. 4, April 1981

In 1970, the Delhi Administration distributed one acre of land each to 120 scheduled caste families in Khanjawala village near Delhi. This

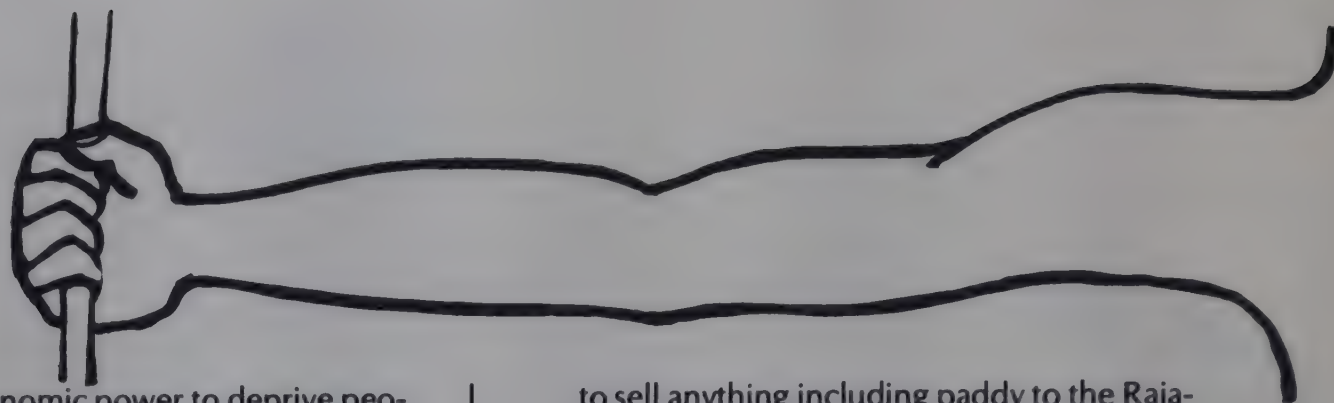
village has about 150 families belonging to the scheduled caste and 700 families belonging to the other castes. The Jats are the dominant caste and own about 7000 bighas out of the total 10,000 bighas of land belonging to the village. The Harijans used to own only 9 bighas till 1970, when the first allotments were made in this village. The land was given on a 5 year lease. The agreement was that ownership rights would be given at the end of five years if during this period the Harijans were successful in cultivating this land.

The Jat landlords challenged this allotment made by the government and filed a case in the court. The court decide to review the lease of the Harijan families for another five years. Khanjawala was immediately rocked by a series of violent agitations by the Jats. The Harijans were not allowed to cultivate this land. They were also beaten up and terrorised. Many Harijans fled the village in fear. One of the Jat landlords was reported to have said, "We could crush these Harijans in one fist if we want to. Right now we are waiting for the court's decision on our case."

Ref. **Indian Express** 23.3.82. "Battle over land rocks Delhi Village"

These are examples in which the landlords have acted violently when their economic power has been challenged. However economic power is not the only power which landlords strive to defend. Landlords also have power in the village because they belong to the upper caste, are educated, control the panchayats, and all other local organisations. They react as violently when their power in any of these aspects is challenged.





Just as they use their economic power to deprive people of their livelihood, they use their social power to deprive people of their human respect and dignity.

Harijans are traditionally expected to perform post-natal services and remove dead animals in the village. When the Harijans of Jagruppur village (in Allahabad district, Uttar Pradesh) refused to carry out these tasks, their entire basti was gheraoed for 3 days by some 200 Brahmin families. The gherao was so tight that nobody was allowed to go out of the basti even to go to the toilet. The gherao might have continued but for the fact that one Harijan managed to escape and call the police.

Ref. **How**, Vol. 4, No. 6, June 1981.

The Rajakas of Andhra Pradesh are the village washermen. Aside from washing clothes, they are expected to perform certain tasks at the time of births and deaths in the village. In return for their work the village is supposed to give them some left-over food and a certain amount of grain at the end of the year.

According to tradition they are not allowed to take even a single day's leave. This is the custom the Rajakas of Kandlakunta Village in Andhra Pradesh dared to break. In December, 1981, they did not wash clothes as usual because they went to attend the 15th day death rites of their headman. The upper castes saw this one act as a challenge to their social power.

The village responded by completely boycotting the Rajakas. Tradesmen were not allowed

to sell anything including paddy to the Rajakas. Millers were not allowed to husk their paddy. The village potter, barber, blacksmith and doctor were warned against giving their services to them. Even private bus operators were warned not to allow the Rajakas to travel in the bus. The boycott was complete, all because of one act of "insubordination".

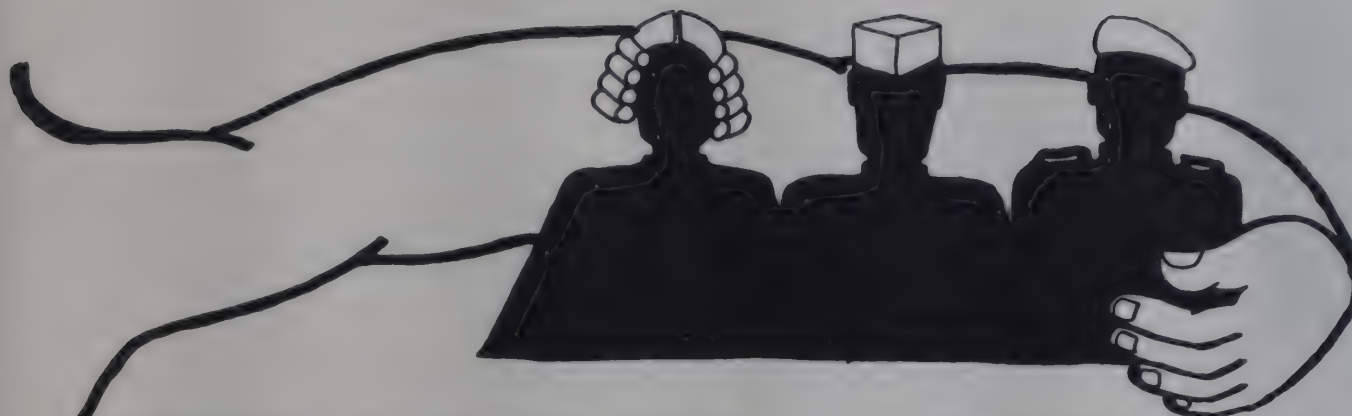
Ref: **Indian Express**, January 8, 1982, "The price of human bondage"

Keshav Shinde was the Harijan representative of the panchayat in Alagud village (Bidar district, Karnataka). In May 1980 he attended the panchayat meeting which was packed with representatives from the dominant Maratha and Lingayat communities. As was the usual practice, Keshav Shinde was served tea in a separate cup because he was a Harijan. On this occasion he merely protested. However, when another Harijan from the village was refused tea at the local tea stall several times, he lodged a complaint with the nearest police station.

On August 30, Sub-Inspector Kamble, also a Harijan, came to investigate, and ordered tea in the same tea stall. He was served tea in a cup reserved for Harijans. The police officer then registered a case against Shivraj who ran the tea stall and also arrested the tea stall owner. An argument followed in which the high caste Hindus sided with Shivraj and assaulted the police officer.

The Harijans supported the police officer who registered a case of assault against 16 high





caste Hindus and also a case under the Civil Rights Protection Act. The 16 arrested persons were released on bail on September 3. The next day the high caste Hindus met and decided on a boycott. Harijans were not to be served in any tea shop, cattle belonging to the Harijans were not to be allowed into the high caste Hindu fields. Harijan children were not to be allowed to attend school and no Harijans were to be given any work. Anyone violating this boycott would be fined Rs. 151. Terrified, the Harijans made a representation to the local MLA. A day after the news of this boycott was published by the press, the Chief Minister denied that any such boycott existed in Alagud.

In January, 1982, both the cases registered against the high caste Hindus were dismissed.

Ref : **Indian Express**, April 18, 1982, "After all this will nothing be done?"

The above examples show clearly the extent to which those in power go in order to retain their control over people. Physical force is not the only method employed by them. They also withhold jobs, and see to it that the people they want to control are completely ostracised and boycotted by the village. They are also capable of using their wealth to buy off the police, the law, politicians and anyone else who is in a position to give evidence against them.

However, those in power do not need to employ any of the above methods to retain control over people. This is because, those who are exploited rarely challenge the authority of those in power. This is true for all exploitative interactions, irrespective of whether

they take place in rural areas or anywhere else. For instance, husbands rarely need to resort to physical force to retain control over their wives and children; school teachers and professors don't need to fail their students in order to show that they are in control; employers don't need to throw out employees in order to exercise power over them (even though they do often use these methods).

Exploitative interactions are a part of daily life to such an extent that people do not question the nature of the interaction. This is because everyone in this society has internalized a belief in the fundamental inequality of human beings. Each individual in this society has learnt to see that some human beings are inherently superior to others.

This superiority may be assumed because of race, colour, sex, caste, occupation, education or wealth. Accepting inequality among human beings on the basis of these criteria is equivalent to saying that the white race is superior to all other races; that Brahmins are superior to Harijans; that males are superior to females; that an educated person is superior to an illiterate person; or that a wealthy person is superior to a poor person. Each of these criteria of superiority is based on birth, over which people have no control. A person cannot choose to be born in a particular race, caste or sex. Neither can a person choose to be born in a wealthy household which will automatically make it possible to acquire an education, a good job and more wealth.

But all along explanations have been found to justify these notions of inequality. These explanations have changed according to the world view of a society, though the notion itself has not changed. For example, when events were explained primarily through reli-





gion and supernatural forces, the superiority of the male over the female was explained by Christian scriptures as follows :

“The Lord God placed the man in the garden of Eden as its gardener to tend and care for it.. And the Lord God said, ‘It isn’t good for man to be alone, I will make a companion for him, a helper suited to his needs.’ So the Lord God formed from the soil every kind of animal and bird, and brought them to the man to see what he called them, that was their name. But still there was no proper helper for the man. Then the Lord God caused the man to fall into a deep sleep, and took one of his ribs and closed up the place from which he had removed it and made the rib into a woman and brought her to man. ‘This is it!’ Adam exclaimed. ‘She is part of my own bone and flesh.’ Her name is woman because she was taken out of a man.”

Ref : **The Living Bible** illustrated Catholic edition, Chapter 2.

By describing the creation of woman from a part of the male body, religion justified the inferior status of woman. Since woman was only a part of man, she obviously could not be equal to him.

Similarly, the superiority of the Brahmin and the other castes over the Sudras was explained by a hymn in the Rigveda, as follows :

“When the gods made a sacrifice with the Man as their victim.. When they divided the Man, into how many parts did they divide him?

What was his mouth, what were his arms, what were his thighs and his feet called?

The Brahmin was his mouth, of his arms were made the warrior. His thighs became the Vaishya, of his feet the Sudra was born.”

Ref : **A History of India**, Volume 1, by Romila Thapar, 1979.

By describing the creation of Sudras from the feet, religion justified their inferior position in society. Since the feet are the lowest part of the body, by association, the Sudras automatically became the lowest part of society.

Once science became dominant, the role of religion in explaining life events declined. In such a society, a scientific explanation had to be found to justify inequality. One of the ways in which science justified the superiority of man over woman was by accurately measuring the weight of the brain of both sexes, and declaring that man was of superior intellect because his brain weighed more than that of a woman. This sweeping scientific conclusion was made in spite of the fact that till today, much of the functionings of the brain are still to be discovered.

In continuously striving to find justification for notions of inequality, we lose sight of the fact that ‘different’ is not the same as superior or inferior. White is different from black; work done by a Brahmin is different from the work done by a Harijan; men are different from women; there is a difference between the knowledge of an educated person and an uneducated person. But these differences do not by themselves give us sufficient reason to assume that one is superior to the other. To say that any of these people are lesser human beings





because of an accident of their birth is thus entirely baseless.

Since this notion of inequality is baseless, there is always the possibility that it will be challenged at some time or the other. This is where institutions in society such as the family, schools, religion etc. play a vital role by constantly reinforcing values of inequality between human beings. This is not to say that these institutions do not perform certain useful functions. But apart from these, they also reinforce a way of life so that, from birth till death, people learn not to challenge the human-made order of society.

The very first institution that human beings come into contact with is the family. In performing its function of teaching children how to live in society, the family moulds the behaviour of children along socially acceptable lines. It is in the family that children first learn that some people are superior to others. Children learn that the father is superior to the mother from interactions such as : the father flinging his plate because the food cooked by the wife is not to his taste; the father shouting or actually hitting the mother when something displeases him; the mother telling the children to be quiet when the father is at home; the mother using the father as the ultimate authority in settling disputes.

Similarly, children learn that parents are superior to them. In addition, they learn unquestioning obedience to authority from statements such as : “you have to do this because I say so”; “don’t ask questions”; “I know what is good for you”. This is how children learn that they need not think for themselves. Also that those in authority are not obliged to give reasons for their orders. Such messages get reinforced when children are rewarded for blindly following rules made by

those in authority (i.e. parents) and punished for any acts of rebellion. Parents also teach children how to relate to outsiders in a discriminatory fashion. Some people are allowed to enter the home while others are not; some are seated on the furniture, others are not; some are spoken to with respect, others are not.

Educational institutions (schools, colleges) further shape the behaviour of human beings from an early age. Those in authority are once again not to be questioned. Students are led to believe that the teacher knows all that there is to know about the subject being taught. Teachers on their part rarely admit that they do not have answers to every question that the student asks. In the perception of the teacher such an admission would lead to disrespect and a loss of control over the students.

Teaching materials such as textbooks, storybooks, pictures, songs and games also play their part in strengthening values of inequality. A new aspect which is primarily learnt in school is that people have to compete with each other. Success is defined as reaching the top, and those who reach the top are considered superior. It is not considered enough that students acquire knowledge—but it is necessary that this knowledge be graded and comparisons be made. Examinations, marks, ranks and prizes are all ways by which success is measured. Striving to reach the top through competition is thus seen as the desirable goal.

Religion is another institution which has always had a powerful influence in shaping human behaviour. All religious thought stems from the fundamental explanation of the meaning of life and death, which forms the earliest known scriptures. This does not mean that throughout history people have held the same religious beliefs. Religious institutions have





always interpreted religious thought in a way that there is no contradiction between the values upheld by religion and those upheld by society at any point of time. In this way, religion seems to sanction the dominant values within each society. The hierarchical nature of religious institutions, the complete obedience to authority and the unquestioning acceptance of religious interpretation are ways in which religion sanctions control.

Beliefs such as, 'the suffering in your present life is the result of sins committed in your past life; 'you lead your life and leave God to judge and award punishment;' 'turn the other cheek', 'don't look for rewards in this world'—all sanction passive acceptance of human injustice. Religion also creates a fatalistic attitude in people by saying that each of us has an assigned role in society and that it is our duty to unquestioningly perform the duties and obligations assigned to that role. It is thus seen as the role of Harijans to be sweepers just as it is the role of Brahmins to be priests and neither can take on the role of the other.

The result of all this indoctrination which is carried out by all institutions in society is that people start classify-

ing human beings into two basic categories - those that are superior and those that are inferior.

Those classified as superior feel justified in being arrogant, aggressive, dominating and contemptuous of the rest. These are the exploiters. Those classified as inferior believe that they have to be passive, submissive, and subservient. They believe that those classified as superior are justified in controlling their lives. These are the people who get exploited.

The fact that human beings continue to be classified as superior or inferior on the basis of such criteria indicates that these myths serve a purpose. In fact, they are responsible for the unquestioned acceptance of exploitation as a part of life both by the exploiter, and the exploited. For the exploiter, these myths provide the much needed justification to exercise control over others. The exploited on their part do not usually challenge exploitative practices because they have come to believe that inequality is the 'natural order'. Thus exploitation continues in society, not only because the people at the top have control over the lives of the people at the bottom but also because most of us believe that this is the natural order of society.





From all that has been discussed in the four parts of this chapter, it is now possible to see why some people have so much while others have so little.

Some people in society are at the top in all aspects of life while a majority are at the bottom. Further, those who are at the top, are able to increase their wealth by making use of new opportunities because of the wealth they have already accumulated in the past. As we have seen, this wealth, which gives some people so much power over others, is accumulated through a process of exploitation.

Thus, the people at the top are not there necessarily because they are better human beings or because of their personal abilities. Nor are a large majority of the people at the bottom because they are incapable of doing any better in life. These disparities among people exist, because everyone does not have an equal chance in life. In fact, it is possible for a small group of people to be at the top only because they are able to exploit a large number of people at the bottom. What may seem like a natural order is actually a human-made order, built on injustice and exploitation.

Exploitation is a part of our daily life, yet it continues mostly unchallenged. This is because of the complete control that the powerful group has over the lives of

others. It also continues because both the exploiters and those who get exploited believe that inequality is the natural order.

Each of us is also a part of this unjust society. Yet aside from expressing shock at the more glaring examples of injustice, most of us do not feel compelled to do anything about the situation. This is because we believe that we neither get exploited nor exploit others. We therefore either believe that it is not our responsibility to see that justice is done, or we believe that we need not act as long as we are not the victims of such exploitation. As we saw earlier, exploitation exists because of the deep rooted belief in the fundamental inequality of human beings. In reality, each of us is responsible, because each of us has internalized this belief. Each of us accepts the criteria on which superiority and inferiority is defined in our society.

Since each of us assumes several roles in our daily lives, each of us exploits in some situations and gets exploited in others. Injustice and exploitation also continue in daily life because we do not question our fundamental beliefs. And it will continue as long as we do not realize that in our silence we are actually saying 'yes' to injustice.



nine

After Shyama left, Radha found it difficult to get back to her usual routine. Even before Shyama's visit Radha had been feeling discouraged and depressed but now she started feeling very lonely too. In fact, in the last few months she had started writing frequently to all her friends and found some comfort in hearing from them.

One day Radha received a letter from the matron of the hospital where she used to work. Radha had written to her over two months ago but had hardly expected a reply. The matron had written that if Radha was still unhappy in her present job, she could probably arrange for her to join the hospital again. She had also mentioned in her letter that Radha may be able to get separate accommodation within the hospital compound itself.

This information threw Radha into a great deal of confusion. Over the next few days she was very restless and wished she could make up her mind. The possibility of working in a hospital again excited her because she felt she'd be able to contribute much more and get more satisfaction from her work. All the same, the thought of leaving the village made her feel strangely sad. Thinking hard about it, she felt as if she'd be somehow letting down all the village people she had come to know so well. But then she could not easily push aside her feelings of frustration in her work here. Even if she stayed, what was the use? She hadn't really achieved anything or even been of much help to the people she had grown so fond of.

On her next trip home she discussed the matter with her parents. They thought it a good idea for Radha to leave especially if they could all live together. Being in a hospital would also make it easier for them to get her mother treated.

84 Thinking things over, Radha decided to write to the

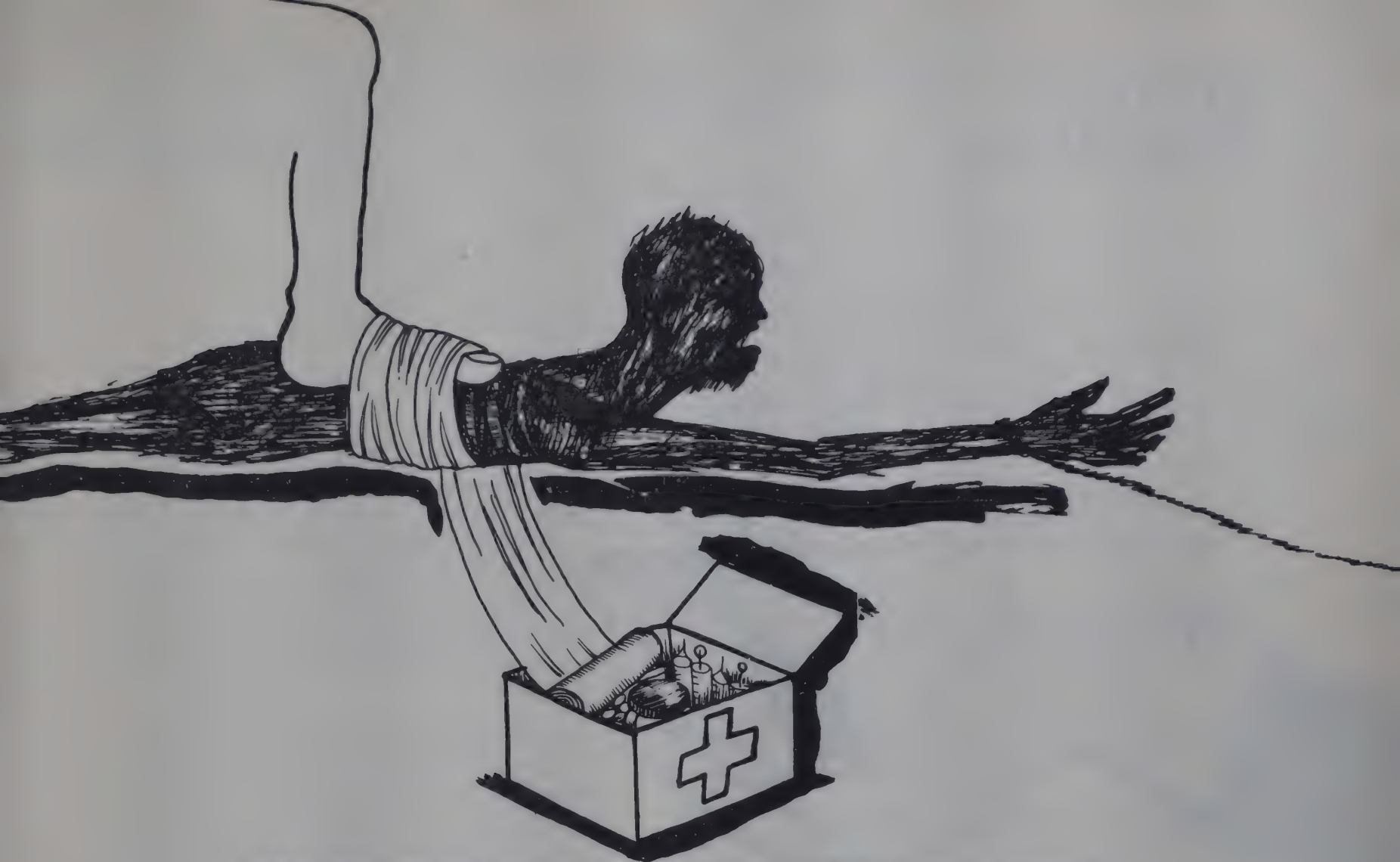
matron and find out if she could indeed come with her family. Till she heard from her, Radha decided not to discuss the matter with anyone else. She was therefore startled when one day, Chamelibai asked her if she was planning to leave. Radha stared at her, and wondered how she had come to know. Chamelibai merely smiled and said she hadn't lived these many years for nothing!

She had sensed Radha's restlessness and knew the time had come for Radha to leave, just like all the others had eventually left. Radha could not quite understand the full meaning of the tone in which Chamelibai said these words but she found herself almost in tears. She felt hurt, and once again felt as though she was letting down all these people. But Radha didn't want to think anymore. She felt she was struggling with thoughts which were too much for her. She decided to leave as soon as she got a reply from the matron.

Radha's decision and her experiences of village work are not unique to her. Health workers in rural areas will probably be able to identify with her experiences and share some of her thoughts and feelings. Given the constraints under which they are working, concerned health workers like Radha feel that there is very little they can do. Their medical knowledge and skills seem to be of little use when confronted with the enormous problems faced by the poor. In working within the role defined by their institutions, health workers therefore feel that they have little choice.

The following chapters of this book go on to discuss some of the reasons why health workers tend to feel so frustrated in their work and further discuss the ways in which health workers can play a meaningful role in improving the health of people.





**In this section we have seen how economic, social and cultural factors determine the health status of people in rural areas. We have also seen how these same factors influence people's attitude and behaviour towards health programmes and services.**

**In rural areas, poverty is the most important factor which determines the health status of a majority of the people. Since poverty is the result of exploitative practices in society, illhealth too is a direct outcome of these unjust practices. However, a majority of the people are helpless to bring about a change in their lives because of the complete control exercised by powerful groups in society.**

**In carrying out their health activities, health workers trained in modern medicine take it for granted that people can improve their health status by implementing the advice given by them. Since this is very often not possible for a majority of people, health workers like Radha end up by feeling frustrated. They either blame themselves for their 'failure' or tend to put the blame on the 'ignorance' and 'backwardness' of the people with whom they are working. At no point of time do they question the assumptions on which modern medicine is based. Nor do they question the solutions which have been put forward by this system for coping with disease in a population.**

**The next section looks at the way in which modern medicine has developed and tries to show that the 'failure' of health workers is not personal but is in large part due to the inherent limitations of modern medicine.**



## SECTION II : INTRODUCTION



Just as health workers trained in modern medicine take for granted the usefulness of what they have been taught, so also the rest of society takes the usefulness of modern medicine for granted. This is partly because of the personal experiences of people who have benefitted from the dramatic cures offered by modern medicine. It is also because of the fact that modern medicine is based on a scientific and rational understanding of the disease process.

As a result, all of us tend to believe that the solutions proposed by modern medicine have developed out of an impartial inquiry into the problems of illhealth. A study of the development of modern medicine however shows that modern medicine was shaped by powerful economic and political groups in society. It is true that modern medicine is based on scientific and rational principles. But it is equally true that the interests of powerful groups in society led to the development of modern medicine along lines which suited them the most. Because of this, the focus of modern medicine has remained on certain aspects of disease while other aspects have been largely neglected.

The section looks at the development of modern medicine in western countries where it originated; shows how the interests of doctors and big businessmen helped in its development and as a result helped to create a limited view of health, disease and the process of healing.



# 1 : How did doctors of modern medicine come to exercise complete control over all matters related to illhealth?

In a health care system based on modern medicine, doctors play a vital role in all aspects of medical care. It is the doctor who decides the definition of disease, who determines whether a person is sick or not and who prescribes remedies to deal with the sickness. Doctors thus have complete control over matters related to illhealth, and it is very difficult for anyone to challenge their authority.

This power of the doctors comes from the fact that, at present, medical knowledge and skills are restricted to a very small minority. Considering that medical knowledge has advanced to such a great extent, it may seem reasonable that only a few people should acquire this specialised knowledge. However, this is not the only reason why medical knowledge is restricted to a few people. This restriction really comes from the pattern that was established in western countries more than a hundred years ago.

At that time modern medicine was neither so advanced or complicated, nor did it have any of its present 'wonder' cures. The control over the knowledge and practice of medicine actually came into being because of the economic interests of doctors, who eliminated competition from all other healers by joining in with other powerful groups in the society of that time. Once the knowledge and practice of medicine became restricted to a small group, it was just a matter of time before this restriction came to be accepted as a normal practice.

**This chapter discusses the means by which doctors gained control over the practice of medicine in Europe and America and points out how this control has had an impact in shaping the health system at present.**

In Europe, before the development of modern medicine, there were three categories of healers : the Church, the lay healers and the university-trained physicians.

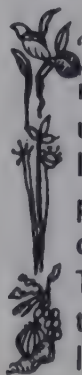
The Church was a powerful institution and influenced all aspects of life. It explained human suffering including disease as God's punishment for one's sins.

Accordingly in times of sickness, it advocated prayers and penance and expected the sick person to accept the will of God without complaint.

The lay healers were mostly wise women, and sometimes men, who had knowledge of herbs and home-remedies. Their knowledge had been collected over a period of time through trial and error and had been passed on from generation to generation. These wise women, later called witches, largely practiced among agricultural peasant communities.

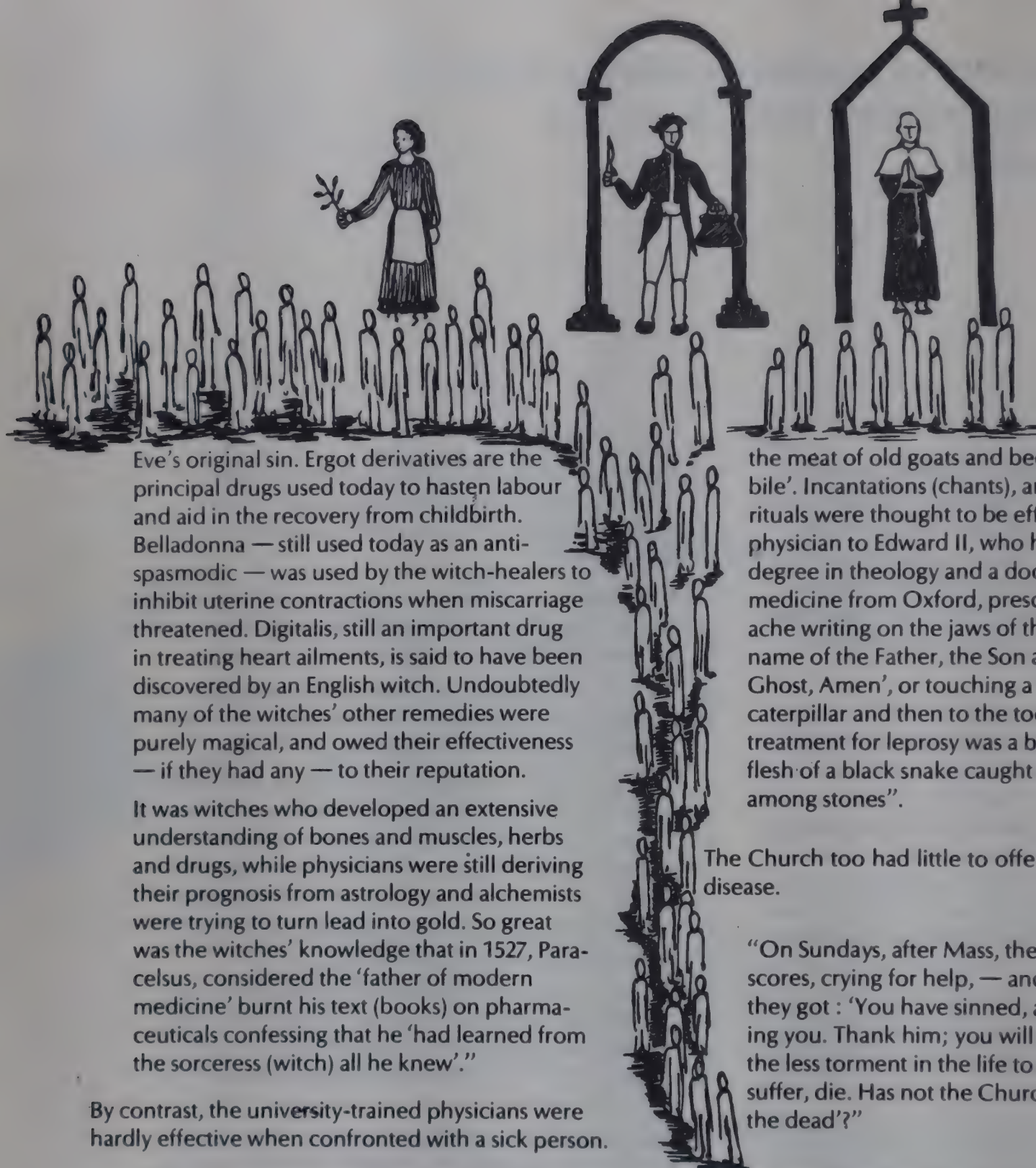
The third category of healers were male physicians trained in universities which were influenced by the Arabic system of medicine. They practiced mainly among people of the upper class and in the courts of kings and nobles.

Out of these three categories of healers, the wise women were probably the most effective in treating illness.



"The wise woman, or witch, had a host of remedies which had been tested in years of use. Many of the herbal remedies developed by witches still have their place in modern pharmacology. They had pain-killers, digestive aids and anti-inflammatory agents. They used ergot for the pain of labour at a time when the Church held that pain in labour was the Lord's just punishment for





Eve's original sin. Ergot derivatives are the principal drugs used today to hasten labour and aid in the recovery from childbirth. Belladonna — still used today as an anti-spasmodic — was used by the witch-healers to inhibit uterine contractions when miscarriage threatened. Digitalis, still an important drug in treating heart ailments, is said to have been discovered by an English witch. Undoubtedly many of the witches' other remedies were purely magical, and owed their effectiveness — if they had any — to their reputation.

It was witches who developed an extensive understanding of bones and muscles, herbs and drugs, while physicians were still deriving their prognosis from astrology and alchemists were trying to turn lead into gold. So great was the witches' knowledge that in 1527, Paracelsus, considered the 'father of modern medicine' burnt his text (books) on pharmaceuticals confessing that he 'had learned from the sorceress (witch) all he knew'."

By contrast, the university-trained physicians were hardly effective when confronted with a sick person.

"The university-trained physician had little to go on but superstition. Bleeding was a common practice, especially in the case of wounds. Leeches were applied according to the time, the hour, the air, and other similar considerations. Medical theories were often grounded (based) more in 'logic' than in observations : 'Some foods brought on good humors, and others, evil humors. For example, nasturtium, mustard, and garlic produced reddish bile; lentils, cabbage and

the meat of old goats and beeves begot black bile'. Incantations (chants), and quasi-religious rituals were thought to be effective : The physician to Edward II, who held a bachelor's degree in theology and a doctorate in medicine from Oxford, prescribed for tooth-ache writing on the jaws of the patient, 'In the name of the Father, the Son and the Holy Ghost, Amen', or touching a needle to a caterpillar and then to the tooth. A frequent treatment for leprosy was a broth made of the flesh of a black snake caught in a dry land among stones".

The Church too had little to offer those suffering from disease.

"On Sundays, after Mass, the sick came in scores, crying for help, — and words were all they got : 'You have sinned, and God is afflicting you. Thank him; you will suffer so much the less torment in the life to come. Endure, suffer, die. Has not the Church its prayers for the dead?'"

In spite of this, the Church was such a dominant institution at that time that it could exercise control over both the lay healers and the university-trained physicians. In fact for many centuries, i.e., from the 5th to the 13th century, the Church had effectively prevented the development of any systematic medical knowledge, because it went against religious thought. Even when institutions of learning were set up and the practice of medicine began to re-emerge as a profession, the Church exercised control by setting the terms within which physicians could practice.





“University-trained physicians were not permitted to practice without calling in a priest to aid and advise them, or to treat a patient who refused confession.”

As for the lay healers, the Church believed that these women had acquired their healing powers by associating with the devil. To the physician, these healers were a professional threat. It was therefore in the interest of both the Church and the physicians to discredit these women healers.

The first step taken was to make university education legally necessary to practice medicine. This effectively prevented women from joining the medical profession, since at that time, women were not allowed to join universities. But this was inadequate to do away with the healers from the peasant communities. They were therefore branded as witches and an organized attempt was made to persecute them. These were the famous witch-hunts which lasted from the 14th to the 17th century, and millions of women were tortured and killed. Both the Church and the medical profession took an active part in these witch-hunts. The doctors performed the function of diagnosing a witch while the Church gave moral sanction, stating that anyone practicing medicine without formal training could have acquired healing powers only through the devil.

These witch-hunts also took place at a time when there were spontaneous revolts against the exploitative economic structure of the time. The authority of the Church, which was also the biggest landlord, was shaking. Poverty was widespread and the witch-hunts helped divert attention from fundamental economic issues.

In spite of the scale on which the witch-hunts were conducted, they still did not succeed in eliminating all women healers. However, these witch-hunts resulted in terrorising women healers from practicing the art of healing. Further, it discredited them completely as being superstitious, malicious and thoroughly evil. The university-trained physicians, with the support of the Church, were now in a position to have complete control over the practice of medicine. It is important to note that these physicians gained control over the profession not by demonstrating their superior skills but by forcibly eliminating competition from probably more competent lay healers.

In America also medical practice was monopolised by the men of the upper class, though this monopoly was not gained through witch-hunts. In 1800, medical practice in that country was open to anyone who displayed skills in healing. This was irrespective of formal training, race or sex. People were against the idea of professions and the country had very few institutions of higher learning. Among the few medical schools that did exist, medical training varied from a few months to two years. Many of these schools had no clinical facilities and high school diplomas were not a prerequisite to join medical school. Practitioners trained in these schools usually practiced a form of therapy known as ‘heroic’ therapy. This consisted of blood-letting, vomiting, blistering and purging. These remedies were often dangerous and were in sharp contrast to the milder herbal remedies used by lay healers.

In the early 1800’s, the growing number of formally trained doctors began to distinguish themselves from all other healers by calling themselves ‘regular’ doctors. These ‘regular’ doctors were from the middle class and





practiced medicine mainly among people from the middle and upper classes.

In an attempt to make medicine a respectable profession, the 'regular' doctors managed to convince the State to pass laws which restricted medical practice only to those people who had received formal training. These laws were met with mass protest from the common people. Firstly, they were against the idea of professionalism. Secondly, the methods used by the 'regular' physicians were dangerous and often proved to be fatal. Thirdly, people had much more trust in the lay healers. The mass protest took the form of a popular health movement and became an important part of the women's movement and the working class movement of the time.

In response to the 'regular' doctors' attempts at restricting medical practice to formally trained persons, other healers also set up their own medical schools and offered training in their own medical philosophy. These medical schools were open to women and to the people of all races. As a result the 'regular' doctors became just one group among the many groups of formally trained practitioners.

By 1840, the State was forced to withdraw the laws (licensing laws) related to medical practice. In spite of this, the 'regular' doctors considered all other practitioners irregular. All the same they had to face stiff competition from these other practitioners. The 'regular' doctors also wanted to establish medicine as a full-time job, because they wanted to earn their livelihood through medical practice. This was in contrast to the other healers who normally practiced medicine only on a part-time basis.

In a renewed attempt to set themselves apart from the other practitioners, the 'regular' doctors set up their

own association which they called the American Medical Association. This association by itself was not enough to give them the kind of credibility which they desired since they did not have any therapy which was any more effective than that offered by the other practitioners.

However, the situation changed at the end of the 19th century. The germ theory of disease had just been popularized and a few 'regular' doctors visited Europe to learn the new science. When they returned, this group of foreign-trained doctors succeeded in getting financial help from the rich industrialists and set up the Johns Hopkins Medical School. This school was different from all the others of the time because it introduced laboratory science and gave more attention to clinical teaching.

Further, only those people who had already studied in college for four years were allowed to enter this school. The duration of medical education itself was also extended to four years. These changes made medical education appear scientific even though the therapies followed were the same old ones. In the meantime, the rich industrialists were also interested in promoting the new concepts of medicine but for their own reasons (see next chapter). Industrialists like Rockefeller and Carnegie, therefore poured money into medical education and research. They were specifically interested in funding only those medical schools which were willing to convert to the new laboratory-based form of medicine.

Flexner, a representative of the Carnegie Foundation, was asked to visit all the existing medical schools in the country, to decide which ones were worth funding. In 1910, he recommended that all the medical schools should have a uniform curriculum. He therefore re-





commended the closing down of medical schools whose concept and practice of medicine was different from that of 'scientific medicine'.

Flexner's report resulted in the closing down of many medical schools. A majority of these schools had been training women and people from the working class. With the closing down of their own medical schools, these people were not in a position to join the new medical schools because of the long duration of training and the expenses involved.

The 'regular' doctors finally succeeded in creating a monopoly over medical education and practice. With the financial support of the industrialists, they pressurized the State to pass laws once again to limit medical practice to those trained in these new schools of medicine.

As in Europe, the doctors gained monopoly over the profession of medicine, not by demonstrating any superior skills in the art of healing but through a process of eliminating competition from all other healers. The practice of medicine thus came to be controlled by the educated men belonging to the upper and middle classes.

## The monopoly of doctors shapes medical practice

Once doctors gained monopoly, they were in a position to set their own terms and conditions.

First, the practice of medicine came to be accepted as a full-time job and became the sole means of livelihood for the practitioners. This meant that the law permitted the doctors to sell their services for a fee set by themselves. Medical care thus became a commodity,

i.e., something which could be purchased. As with every other item in the market, medical care could be purchased only by those people who could afford to pay for it.

Second, the medical profession could now restrict the entry of students into medical colleges. By setting a minimum standard of education as a prerequisite, entry into these colleges automatically became restricted to only people from the richer sections of the population. Thus, the profession continued to remain in the hands of persons from the upper class. Further, by putting forward seemingly scientific medical theories which stated that women were biologically unfit to gain higher education, doctors prevented women from entering medical colleges. These theories could not be challenged by anyone because doctors were now considered the only authorities on the functioning of the human body (for details, see chapter 3 of this section).

Third, doctors could now demand an unquestioning obedience from their patients. Patients could neither ask questions nor challenge the treatment they received. The experiences of patients regarding their illnesses were considered unimportant in diagnosis as more and more diagnostic aids began to develop. This further heightened the sense of powerlessness experienced by the sick persons. Patients were now expected to passively accept and obey the doctors' orders. This absolute control over the patient was necessary for the doctors because only then could their authority remain unchallenged. If patients suffered due to a wrong diagnosis or negligence in treatment, these mistakes were kept as professional secrets among the doctors. This came to be accepted as part of medical ethics — the loyalty of the doctors was to go first to the profession and then only to the patient.





Finally, by discrediting and eliminating all other systems of healing, doctors prevented the development of any alternative systems of healing. This has resulted in the propagation of the modern system of medicine as the only appropriate solution to the problem of ill health. This has also resulted in preventing the limitations of the modern system of medicine from becoming known (for details, see chapter 4 of this section).

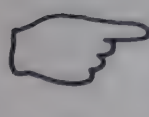
By gaining a monopoly over medical practice doctors established a pattern of medical care which was in keeping with their own economic interests.


This pattern, which was established in the early part of this century, was adopted by India too, when modern medicine became the officially recognised system of medicine in our country. In India therefore, doctors of modern medicine gained a monopoly over the practice of medicine with the aid of legislation. As a result of this, in our country :


 private practice is legally allowed.


 there is no restriction on the fees charged by private practitioners.


 more doctors go into private practice than into government service.

 the government is unable to make doctors work in areas which require medical services most.

 even though several committees have stated that medical education is not suited to meet the health needs of the majority, the content of medical education continues to focus on the medical needs of a minority of the people, i.e., those who are from the upper classes.

 doctors continue to demand complete obedience from patients and continue to prescribe treatments, irrespective of whether the patients are able to afford them or not.

 Indian doctors continue to look down on all non-allopathic systems of healing.

 here too doctors continue to promote modern medicine as the only answer to the problems of illhealth, even though modern medicine as it is practiced today is not in a position to deal with the primary causes of disease in our country.

*Refer also to chapter 3 and 4 of Section I and chapter 1 of Section III .*

All the quotations in this chapter have been taken from **Witches, Midwives and Nurses : A History of Women Healers** by Barbara Ehrenreich and Deirdre English, The Feminist Press, 1973.



## 2 : Why were businessmen interested in promoting modern medicine?



In the last chapter we have seen how doctors succeeded in gaining complete control over the practice of medicine with the help of powerful groups in society such as the Church and big businessmen. Though the Church had a major role in helping doctors to gain a monopoly, it was really the businessmen who played a significant role in promoting medical education and research. While it is easy to identify the interests of the doctors and the Church, it is not easy to identify the interests of businessmen in helping doctors and in funding medical education and research. This chapter tries to identify these interests of businessmen by looking at the development of modern medicine in western countries at the time when businessmen were emerging as a powerful group in society.

Modern medicine developed at a time when a tremendous change was taking place in the way of life of the people in western countries. Agriculture, which had been the chief source of livelihood previously, was being replaced by trade and manufacturing. Businessmen and factory owners, who gained their wealth from these new activities, were emerging as a powerful group in society. This change from one means of livelihood to another, also created several other changes in people's lives.

Previously when agriculture had been the main source of livelihood, a majority of the people worked on the land as tenants or bonded labourers. Whatever they produced was basically to meet the demands of the landowners. Families were also forced to meet all their basic requirements themselves. People therefore produced their own food, clothing, soap, candles etc. Whatever a family did not produce on its own, it obtained through the exchange of goods within the village. During times of illness, health care too was met by the

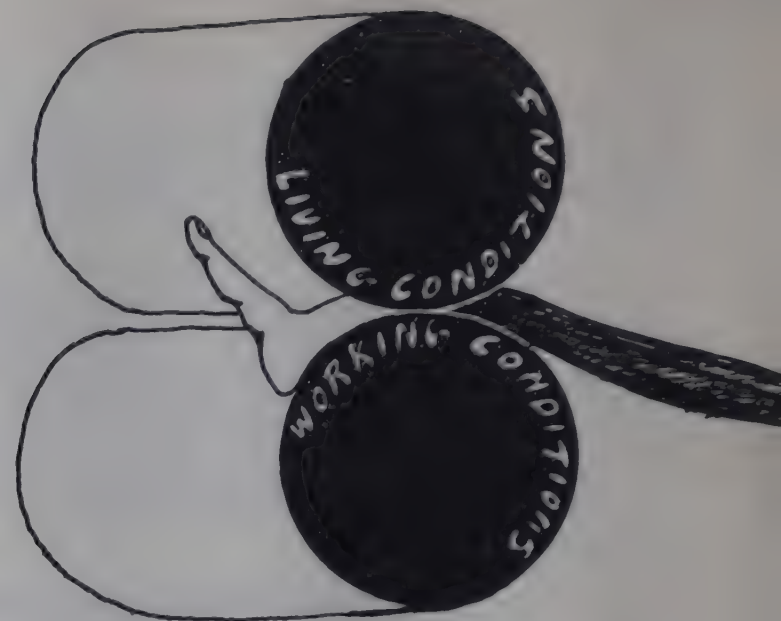
families themselves. Knowledge about home-remedies and herbal medicines was passed down from one generation to the other, and women took an active part in healing and nursing the sick.

Gradually in Europe and America, trade and manufacturing began to replace agriculture as the main source of livelihood. This change took place in several ways. In some countries, land was taken away from the tenants and cultivation was carried out by employing agricultural labourers. In some places, independent cultivators lost their land because of their indebtedness. In some countries large scale use of agricultural machinery decreased the demand for human labour. In some countries landowners stopped cultivating altogether and instead used their land for grazing sheep so as to produce wool for the market. Whatever the reason, the result was that large segments of the rural population were forced to seek employment outside of agriculture. The only jobs available were in the factories that were being set up. Instead of working for landlords these people now worked for factory owners.

People now no longer produced the basic necessities of life such as food, clothes etc. for themselves. Whatever was produced belonged to the factory owners who then sold these goods in the market. People were therefore forced to sell their labour power for wages and with these wages buy all their basic necessities. These workers, who were dependent on factory owners for their survival, were now emerging as a new group in society - the working class, - just as factory owners and businessmen were emerging as the new powerful group in society.

The factory owners exploited the helpless state of their workers by getting maximum work done at minimum





wages. Since people were forced to seek employment in factories, factory owners could set the terms and conditions for workers. It was in the economic interest of the owners to make labourers work for long hours and at the lowest possible wage because their own profit came from the work done by these workers. Hence wages were so low that even the entire family's combined income was not sufficient to meet their basic requirements.

Working conditions were also terrible. People had to work for as long as sixteen hours a day, with little or no safety equipment, in factories which were crowded, noisy, poorly lit and ill-ventilated. As more and more people came to the cities in search of work, living conditions also deteriorated, leading to overcrowding, accumulation of garbage etc. Migration from the villages to cities also led to breaking up of family ties and other support systems.

All these factors combined together to bring about a sharp increase in disease. Epidemics became frequent. Death rates increased and deaths among workers occurred faster and at an earlier age. For instance, in 1870, in Bavaria, the infant mortality rate was as high as 449 per thousand live births. In Europe, the incidence of tuberculosis among women textile workers was as high as 22 per 1000 in 1852 and increased to 125 per thousand by 1861.

### **Why did businessmen promote modern medicine?**

The high incidence of disease and death in the cities, was causing great concern among the public. This was the time when the relationship between disease and poor sanitation, unclean water and unhygienic living

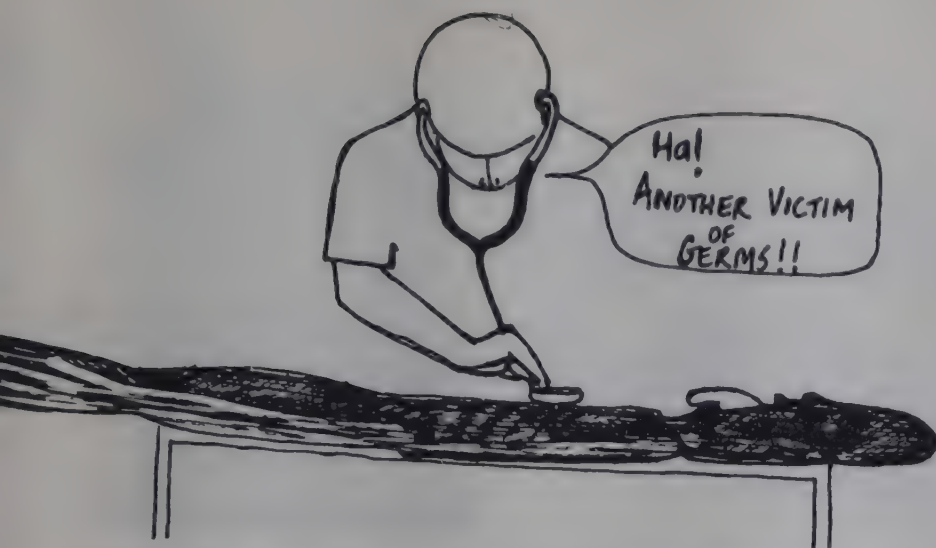
conditions was becoming well-established. Further, it was becoming clear that disease could spread from the city slums to the other parts of the city where the richer sections of the population lived. The plague and cholera epidemics had already proved this point. Aside from the fear that the wealthy people could also become sick and die, the wealthy were also concerned that the productivity of workers would decrease as a result of sickness.

In the beginning factory owners responded to this situation by bringing in healthier workers from rural areas. However, with deteriorating conditions, spontaneous worker's organisations came into being to demand better wages and better working conditions. By preventing owners from bringing in labour from outside, these organisations succeeded in getting better wages and a reduction in working hours.

This however resulted in less profits for factory owners who now had to pay their workers more and also got less work out of them. Their profits were also affected because the workers frequently absented themselves due to sickness. For all these reasons, it was in the interest of factory owners to improve the health status of the workers. Controlling disease among workers would not only improve their productivity, it would also prevent disease from spreading to the richer sections of the population. Factory owners therefore pressurised the government to spend public funds in improving facilities for water, sanitation, housing etc.

During this period, bacteriology, human physiology, pathology, and medical technology were developing as separate fields of medicine. The germ theory of disease was also beginning to gain popularity at this time. All these new advances in medicine were making it possible to identify the specific cause of disease and to





also develop specific remedies. Since factory owners were interested in any knowledge that could help control disease, reduce the duration of illness and show how human energy could be most efficiently utilised, they poured large sums of money into research and development of modern medicine. This money, spent on the development and provision of health care was seen by them as a good investment. An added advantage in helping in the development of modern medicine was that **the new theories shifted the focus of disease causation from the social conditions that bred disease to the immediate cause which was the germ.** The germ theory helped to divert attention from the fundamentally exploitative nature of the commercial society. Instead of saying that disease was primarily caused by poor nutrition, bad working and living conditions, people could now be told that disease was caused by germs. Instead of focusing on the responsibility of factory owners in creating unhealthy conditions for workers, people could be told that it was their own fault that they fell sick as they were ignorant, and lived in an unhygienic way. Thus, although medical science on the one hand, found out the immediate cause of disease, it took away the responsibility of illhealth from society and placed it on the individuals themselves. This new theory of disease was actively promoted and publicised through health education, schools and mass media. Disease came to be accepted as an individual's responsibility and individual hospital based health care became the norm. Health care now became a neutral subject, something that was unrelated to the commercial way of life and the problems this way of life created. As already stated, the health of workers had become important to factory owners. They therefore pressurized the government to set up hospitals and themselves funded research that could improve the health of the workers.

## How did businessmen use modern medicine to further their economic interests?

With the development of vaccines and specific measures of disease control, factory owners and businessmen began to fund mass campaigns against disease as and when it was in their economic interests to do so. Even though they undertook this work with the aim of increasing productivity of the workers, this strategy also helped to create a kind-hearted image of themselves. By providing health services, which were in the immediate interest of both workers and owners, businessmen succeeded in diverting attention from the exploitative processes which were a constant source of conflict between the two groups. Health care thus became a service which could be used by those in power to suppress unrest among the workers.

This is clearly illustrated by the efforts of Rockefeller, a leading industrialist, in developing public health measures in the Southern States of America. The economy of these states had become stagnant after the Civil War in 1860-65 with the abolition of slave labour. At the turn of the century, businessmen such as Rockefeller, were interested in expanding their business interests to these states. A major factor which limited the productivity of the workers both in the fields and in factories was the time lost due to illness.

In rural areas the biggest problem was hookworm and the Rockefeller Sanitary Commission organised a mass campaign against this disease. As part of their anti-hookworm campaign, organizers also involved the local farmer's organisations. Previously, these organisations had been responsible for the popular revolts of that time. By working with these



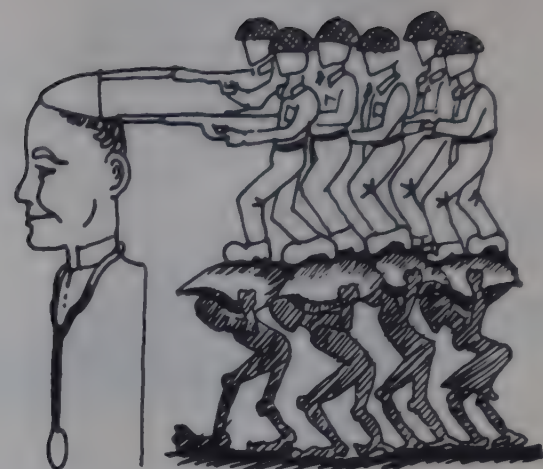
*good business sense!*

farmer's organisations and helping the farmers in improving their health, businessmen were able to breakdown some of the antagonism which farmers had towards big businessmen. These mass campaigns also helped businessmen to bring about a sharp increase in the productivity of workers. A 1918 Report on the "Economic value of the treatment of hookworm infection" brings out this benefit clearly. According to this report, on two plantations in Costa Rica, employing 320 labourers, treatment for hookworm resulted in a dramatic increase in productivity. On one plantation, the same number of labourers were now able to cultivate nearly 50% more land. Further, because of their increased strength as a result of treatment, the workers were able to work harder and for longer hours. It therefore cost the plantation owners less money to cultivate the land. While this increased productivity increased the wages of the labourers also, the benefit to the businessmen was much greater.

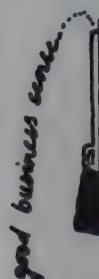
Thus the existence of hookworm was not the main reason for businessmen to promote public health. These efforts were undertaken to increase productivity and hence the profits of the businessmen; and to meet a common need of the workers and businessmen so as to reduce the conflict between them.

When Western countries started expanding their economic activity to other countries through colonization, (i.e., the domination of one country over another through military control for the purpose of forcibly taking away the resources of the dominated country. Colonizers — people belonging to the dominating country.)

they adopted the same strategy. Western countries



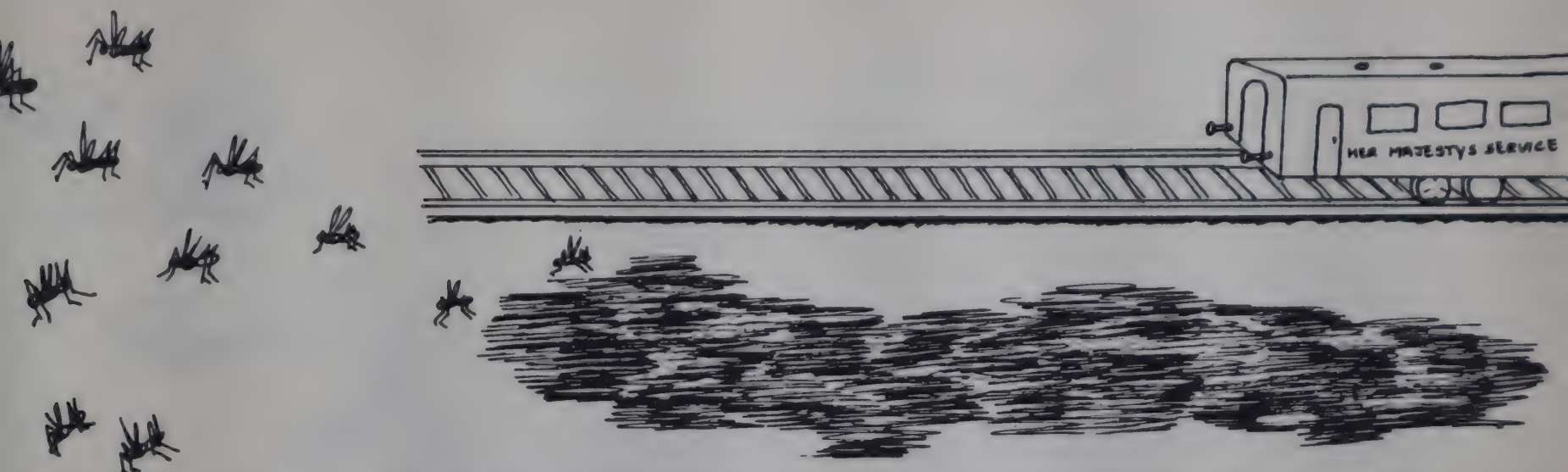
conquered other countries so that they could exploit them for their raw materials and labour. In country after country colonizers created health problems by changing cropping patterns, cutting jungles, building dams and used medicine whenever disease threatened to slow down or halt their economic activity. In country after country they exploited the local population and simultaneously created a kind-hearted image for themselves by providing health care for the very problems they had created.



"If economic exploitation and military occupation were the most blatant and odious (hateful) aspects of the expansion of American business to subject peoples (the population that was dominated), health care and public health measures were portrayed and often accepted as the kindly humanitarian side of American intervention." (H. Cleaver)

In expanding their economic interests to the Third World countries, colonizers were faced with the problem of tropical diseases. Firstly, the colonizers were affected much more by these diseases since they had no previous experience of them. Secondly, in pursuing their economic goals, they often created conditions which increased the incidence of these diseases. For instance, sleeping sickness was a disease indigenous to Africa. However it was not a major problem in Africa because the tsetse fly that caused the disease was held in check by the undergrowth in the jungles. African people also avoided living in areas where the tsetse fly was common. The colonizers indiscriminately cut down jungles and cleared the undergrowth to use the land for cultivation. This resulted in epidemics of sleeping sickness. Colonizers were therefore forced to control sleeping sickness if they wanted to pursue their economic interests and make use of the cheap





labour available in Africa. It was for these reasons that institutes of tropical medicine, funded by Western governments and businessmen were set up in the western countries.

A similar pattern can be seen in India during the British rule. The British conquered India to exploit the country for its natural resources, raw materials and cheap labour. This meant developing communication systems such as roads, railways, and bridges in the country. Dams and irrigation projects were also undertaken to produce crops which were then exported out of the country. In pursuing their economic interests the British often created conditions which favoured the increase of disease.

An expert committee set up by the British to study the health problems of India, clearly states that the incidence of malaria, tuberculosis, hookworm, leprosy and venereal disease increased due to the changed social and economic conditions brought about by the British rule in India. For instance, with regard to malaria the report states :

"A tragic feature of the situation is that much of the malaria prevalent in the populated areas of the country is man-made. In many cases roads and railways have a sinister account to their credit. Their embankments often cause such interference with natural drainage as to create conditions favourable to the breeding of the malaria mosquitoes..... while burrow pits which follow the lines of our roads and railways help to provide additional breeding ground.

The Sukkur barrage and the Mettur irrigation project stand as object lessons of the result of failure to make such provision (for anti-mala-

rial measures). In both cases malaria developed on a large scale in regions which were previously free from it." (Bhore Committee).

Even though the British were responsible for the increased incidence of disease in India they undertook health measures only when they themselves were directly affected by it. For instance, in 1859, a Royal Commission was appointed to investigate the causes of the extremely unsatisfactory health status of the British Army stationed in India. The Commission recommended the establishment of a public health commission in each Presidency and pointed out the need for protected water supply, construction of drains and preventing epidemics in the civil population in order to safeguard the health of the British Army.

In spite of this Commission's report, no serious attempts were made to introduce public health measures except in 1880, an Act was passed to make it compulsory for people to get vaccinated against smallpox and cholera. Serious attempts were undertaken in only those regions where economic activity was affected because of disease. For instance, the Britishers were able to get the Raipur-Vizagapatnam section of the BN railway constructed only because they succeeded in controlling malaria among the workers. Similarly, the Mettur dam and Sarda Canal are other examples where large irrigation projects were successfully completed with the help of malaria control measures.

The British government was not interested in controlling disease among the rest of the Indian population even though they had the means to do so. This is clear from the fact that the British government made no attempt to control disease which was **created** by the projects undertaken by them. For instance, the British controlled malaria in order to construct the Mettur



dam but made no effort to control malaria which spread as a result of the dam. This is also evident from the various statements made by the Bhore Committee in 1946.

“In a review of the action taken by the authorities to control the incidence of malaria it must be frankly stated that the efforts so far made have been quite inadequate to make even a faint impression on the incidence of the disease in the country as a whole.”

“The fact that the disease (hookworm) is so prevalent in mines and on plantations is a grave reflection on the sanitary control exercised by the (British) authorities responsible for labour in these areas.”

According to the same report adequate measures to control tuberculosis were not undertaken by the British because,

“A social disease such as tuberculosis can be combated successfully only if ameliorating measures on an extensive scale can be undertaken so as to improve the general standard of living including housing, nutrition and the sanitation of the environment in the home, the workplace and places of public resort. An organized effort for improving environmental hygiene has hardly begun partly because of the high cost involved and partly because people have not been educated to recognize the need for and demand the provision of such improved conditions of life.”

98 Clearly, unlike in the southern states of America where the workers had revolted against businessmen, Indian

workers were not in a position to revolt because of the military control of the British. The British therefore spent their money in health measures that were of greater priority to them. Control of smallpox, cholera and plague was one such priority. In the 19th century there were three or four pandemics of cholera which covered Europe, the British Isles and America, and these pandemics were believed to have originated in India.

A number of countries with whom India had trade relations imposed quarantine restrictions on ships arriving from India because of these diseases. Quarantine naturally resulted in a loss of time and money for the British since it meant that their ships were held up in foreign ports for as long as 40 days. The public health organisations set up in the provinces therefore concentrated their efforts on the control of these diseases. It is significant to mention that these diseases were responsible for only about 4% of the mortality in India at that time.

To sum up, businessmen promoted the development of modern medicine primarily for their own economic interests. They were interested in any knowledge which could help in the control of diseases or in therapeutic techniques which could reduce the duration of illness, and thereby increase the productivity of workers. Modern medicine had the potential of identifying the specific disease-causing agents and providing the possibility of specific remedies against them. Businessmen were therefore interested in the development of this knowledge. Further, this system of medicine focussed on the immediate cause of disease rather than the primary causes of illhealth. Businessmen were interested in popularizing this view of disease because it helped to divert attention from the exploitative nature of society and their own role in it.







Finally, by distributing the services of modern medicine, businessmen were able to project a kind-hearted image of themselves and thus reduce the antagonism felt by the people whom they were exploiting.

## Impact of the role played by businessmen in promoting modern medicine

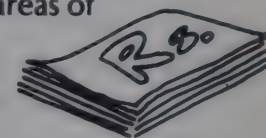
The real significance of the part played by businessmen in promoting the development of modern medicine becomes clear when we consider that the germ theory of disease was not the only theory that was available to explain the causes of illhealth at that time.

As far back as 1848, scientists knew that social and economic conditions have a crucial impact on health and disease. Since that time, a section of the medical profession have repeatedly tried to bring about a change in medical thinking. It was through such efforts that the term social medicine came into being. According to these physicians, the purpose of social medicine was to study human beings in relation to the rest of society and to pay particular attention to those social and economic forces which directly or indirectly affect health.

However, such a theory was not in the interests of those who were rich and powerful. If such a theory had become popular it would have focussed attention on poverty and exploitation as the real reasons for illhealth. Prevention and control of disease would have then made it necessary to bring about major changes in the social structure of society. The germ theory of disease seemed much more acceptable because it did not challenge the oppression in society and had the added advantage of making it appear that the poor had only themselves to blame for their illhealth. This theory also favoured the interests of doctors of that

time most of whom were from the upper class. As long as the focus remained on germs, doctors had a dramatic and important role to play in the disease process. They could actively intervene by prescribing medicines which would cure the patient for the time being by removing the immediate cause of disease.

As a result, businessmen funded and the medical profession carried out research in only those areas of medicine which suited them the most.



## In Independent India

Once the direct rule of the British ended in India, the Western countries could no longer intervene directly in the policies of the Indian government. However, they still needed to establish trade relations with India both to import raw materials and to export their finished products. This was the time when 'expert' organizations, funded mostly by Western governments, came into existence. These organizations, such as the WHO, UNICEF, FAO etc. influenced and directed policies and programmes by giving 'expert' advice to the newly independent countries. This advice was related to all matters of development, including health. The setting up of these organizations was also seen as promoting the 'goodwill' of the developed nations towards these countries.

Just as businessmen succeeded in reducing antagonism of farmers' organizations in the southern states of America by providing health services, so also 'expert' help aimed to overcome the antagonism felt by previously colonized countries towards their ex-rulers. For instance, at the conference which was held to set up a regional centre for WHO in South-East Asia, Nehru, the then Prime Minister of India stated that

"the political conflicts of the world were caused



mainly by fear, and that therefore the solution of political and economic problems could be assisted by greater international co-operation in matters like health where there was no reason for any kind of conflict." (WHO)

This goodwill had to be established because only then could the developed countries pursue their economic activities unhampered. Trade relations had to be continued with countries like India, since natural resources such as metals, timber, rubber etc. were required for their factories. Further, the goods produced by these factories needed to have a well-established and secure market. It was foreseen that countries like India could provide such a market if the purchasing power of people as well as the overall national income was raised.

In the field of health, two major constraints in increasing the productivity of workers were identified. Firstly, the incidence of disease was very high as a result of the economic policies followed by the colonizers. Secondly, most of the prevalent diseases were communicable in nature and quarantine restrictions became necessary to prevent disease from spreading through trade routes. This affected trade adversely. For both these reasons, therefore Western countries as well as their expert organizations, emphasized the need for the control of diseases. This was also in the economic interest of countries like India.

The control of communicable diseases thus became a priority and this period marked "the beginning of a change of direction of international co-operation towards tackling such diseases at their source rather than placing their barriers in the path of spread through quarantine measures" (WHO). This meant that coun-

tries such as India which had a host of communicable diseases were forced to spend a considerable portion of their resources in controlling diseases within their own countries. Little attention was paid to finding out whether or not these diseases were of primary importance in the overall health status of the country. For example, when India went in for smallpox eradication at the insistence of WHO, smallpox as a disease accounted for only 0.4% of all deaths in the country.

The strategies followed in controlling these diseases is also significant. Let us take the example of malaria, a disease which accounted for a major portion of mortality and morbidity in India. Malaria was considered to be a disease that paralysed agricultural, industrial and commercial development. In fact, extensive calculations in terms of economic loss to the nation due to this disease had already been made. The effect of the Malaria Control Programme was demonstrated by the first WHO assisted malaria control project in 1949.

The region chosen was the Tehri-Garhwal area of Uttar Pradesh. This area was thinly populated since it was a malarial infected region. As a result of the Malaria Control Programme, people began to stay and cultivate the land in this area. The region soon became prosperous and land values went up. This experiment was basically undertaken to demonstrate the potential of expanding agriculture by controlling malaria. It is important to note that the experiment was not conducted as such with the aim of reducing malaria in an affected population.

There were also other advantages to both the Indian and Western governments in the way the Malaria Control Programme was planned. The malaria control programme consisted of spraying DDT twice, in areas where malaria was high. An Indian malariologist





commenting on the usefulness of this strategy stated "no service establishes contact with every individual home at least twice a year as the DDT service does, unless it be collection of taxes". (H. Cleaver.)

The significance of this strategy becomes clear when we consider that Eisenhower the then President of the U.S. sanctioned funds for a world-wide Malaria Eradication Programme in 1956. He also stated "the present governments of India, Thailand, the Philippines and Indonesia among others have undertaken malaria programme as a major element of their efforts to build political strength to combat communist infiltration." (H. Cleaver).

Thus, even after direct colonial rule ended, Western businessmen either directly or indirectly (i.e., through their governments or international organizations) continued to use modern medicine to pursue their own economic interests. The Indian government too was interested in carrying out the same health programme to pursue its own economic goals.

It is a fact that these health programmes provided temporary relief from some diseases but it had very little impact in improving the health status of the Indian population on the whole. This is because all these health programmes aimed at dealing with the imme-

diolate cause of disease rather than the primary causes. (The limitation of this strategy in controlling diseases is discussed in greater detail in chapter 4 of this section).

These health programmes also had the effect of expanding agriculture, increasing productivity and raising the overall income of the country. However, the overall economic benefits to the Western countries was much higher than the benefits got by the Indian government. Moreover, for the majority of the people in India (whose increased productivity went into the building up of the national income and the wealth of western businessmen and their governments) economic conditions remained largely unchanged.

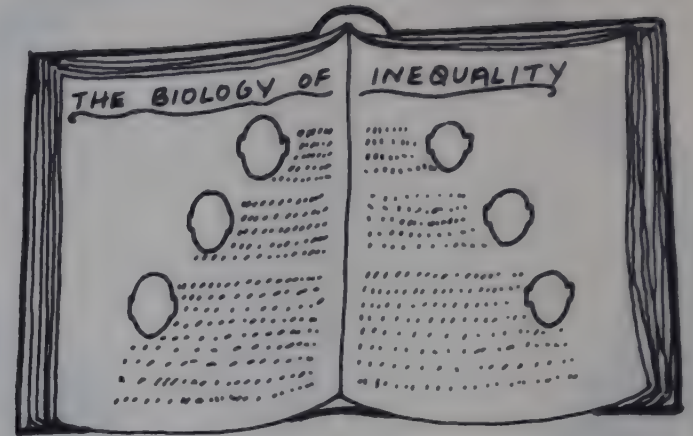
In fact, many of the economic policies which were followed on the basis of 'expert' advice actually led to the deterioration of the economic status of large sections of the population especially in rural areas. This deterioration in their economic status in turn resulted in a deterioration of their health status.

Thus, these programmes did not help in improving either the health status or the economic status of the majority of the people. All the same they have helped to create the impression that both the Indian government as well as the Western countries are doing all they can to relieve suffering, sickness and poverty.





### 3 : How does modern medicine justify inequality among people in society?



In the last chapter we have seen how modern medicine served the interests of those in power. Modern medicine also serves the interests of this group in other ways. One such way is by providing seemingly scientific explanations to justify the inequality among people in society. This chapter takes up one example of inequality and tries to show how medicine continuously came up with theories which explained this inequality as the natural order.

An exploitative society rests on the fundamental belief that all human beings are not equal. Only if this belief is accepted can a small section of the population continue to accumulate wealth unchallenged (See chapter 8D of section I).

It is therefore in the economic interest of this small section of the population to propagate and constantly reinforce this belief.

But the possibility of this belief being questioned remains as long as it is not accepted as the natural order. It therefore becomes essential that explanations for inequality in society be given in such a way that they seem logical and cannot be challenged easily.

Before the development of science, religion played the role of providing the necessary explanations. But with the growth of science and the accompanying change in the world view, more 'rational' and 'objective' explanations had to be given. Medicine as an institution, with its seemingly scientific outlook, took up the role of providing explanations for inequality between human beings by interpreting social reality in biological terms. By associating inequality with biological differences, medicine justified and continues to justify the exploitative nature of human society. In doing this, medicine once again serves the economic interests of the powerful groups in society.

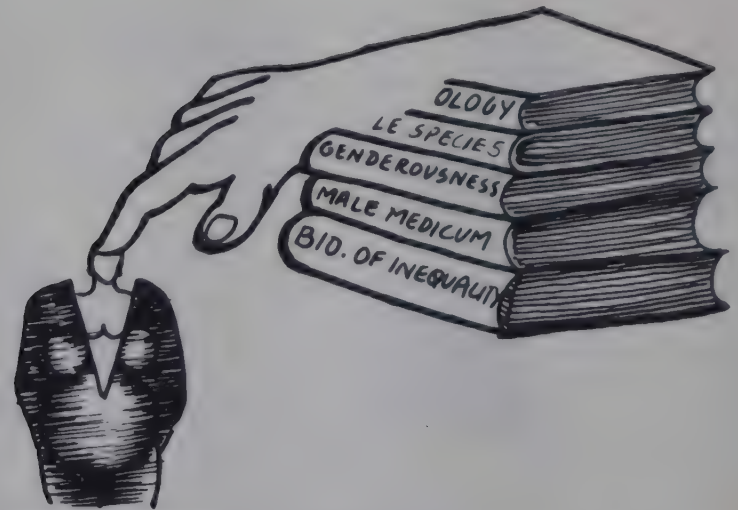
This can be best illustrated by looking at the way medicine has viewed women over the last two centuries. Medicine has proposed theories to justify the social roles that women have been expected to play. The obvious difference between men and women is the difference between their bodies, more specifically, between their 'reproductive organs'. Therefore medical theories put forward to explain the inferior position of women have often been based on this biological difference.

#### Medical theories justify social roles of women

In Western countries, before industrialisation, most of the economic activity was centred within the home. Women took an active part in contributing to the economic survival of the family, apart from their specific contribution of giving birth to babies. With the help of their female children, women produced all the basic necessities of life and whenever necessary, also helped in the production of food. Women in pre-industrial society were therefore valued for both their reproductive and economic functions.

With industrialisation, however, many of the tasks that women performed as a part of their daily life were taken over by factory production. Almost everything, from clothes to candles, began to be produced in factories on a mass scale and at a cheaper rate. For women from poor families this meant a shift of work place from their homes to the factories. But for women from rich families, it meant more and more free time. Women from the upper class no longer had to do anything more strenuous than sewing or sketching to keep themselves occupied.





In fact, it became a status symbol for the upper class man and a proof of his success in the world, if he was able to afford a wife who did nothing useful but remained a social ornament. These women were left with only one valuable role — that of bearing children. This reproductive function was seen as necessary for the propagation of the 'superior' race and medical theories of that time emphasised that women of this class should conserve their energies to perform this supreme function effectively.

Medicine proposed that women were inherently sick, weak and too fragile to participate in any activity other than reproduction. They put forward a so called physiological law known as the law of 'conservation of energy' according to which each human body contained a specific amount of energy that was distributed among the different organs of the human body. If a particular organ had to develop well it could be done only at the cost of the other organs. Since reproduction was the central role of women, it meant that the reproductive organs could develop only at the expense of all other organs, especially the brain. This resulted in the woman's brain remaining in an under-developed state.

An extension of this theory was that if a woman exercised her brain (by doing intellectual work) or muscles (by taking part in sports) the energy needed to develop the reproductive organs got diverted into non-useful activities. This, the doctors stated, could result in weakening the reproductive organs. It was also felt that such activities caused the many diseases and nervous disorders that already afflicted the women from the upper classes. The women were thus advised to confine themselves to the function of reproduction and not bother their 'pretty heads' about matters which concerned only men. (In contrast, men were

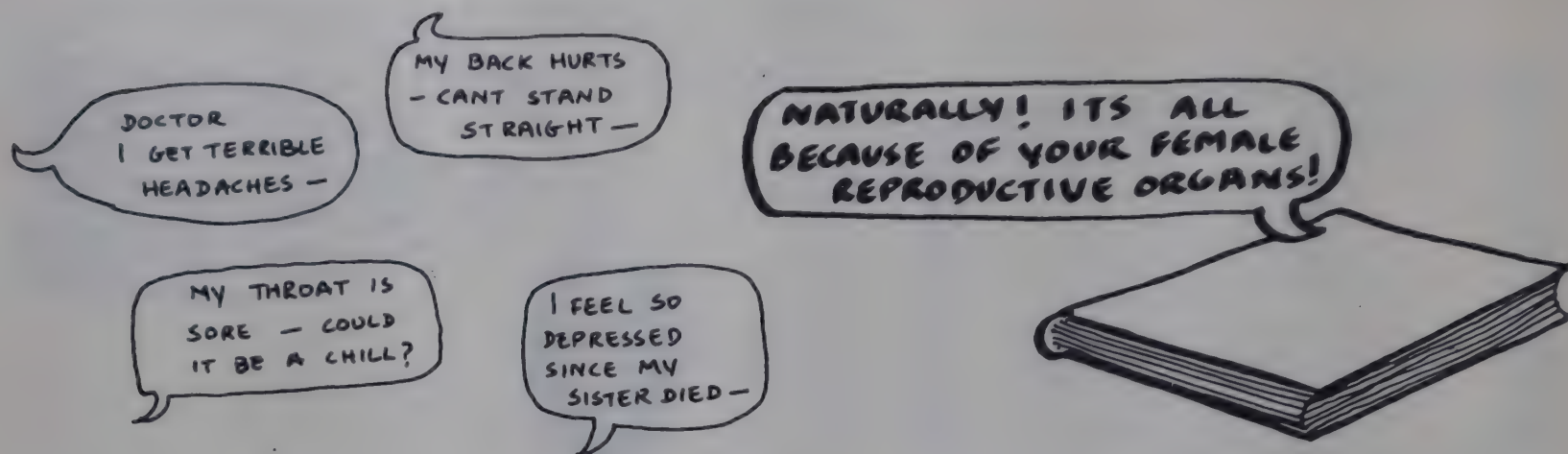
told to conserve their reproductive energy so that they could develop their brain power to its maximum ability.)

Thus, medical theory, by basing its conclusions on the essential differences between male and female bodies, stated that it was not in a woman's nature to perform any economic activity. Her nature dictated that she was fit only to reproduce and propagate the human race.

However, these medical theories could not explain the position of women in the labouring classes who were unable to afford the life of leisure led by upper class women. These women from the poorer classes had to work for long hours to earn their living—either in factories as labourers or in the homes of the well off as servants. Their labour in the factories was important for businessmen to accumulate wealth. It was also their labour which enabled the upper class women to lead a life of leisure. Forced to work for 12-16 hours each day they could never have taken time off to conserve their energies for reproductive functions as was dictated by the medical profession of that time. But in spite of the fact that their energy was being utilized in physical activities, they could still reproduce and at a much faster rate than upper class women.

To explain these contradictions the medical profession proposed an alternate theory. The doctors observed that the working class women were robust and healthy, perhaps as a result of the inherited characteristics of their race. For instance, the women of African origin who had been brought to the Americas as slaves, were considered healthy and fit for hard labour as their muscles were well-developed as part of their racial characteristics. But this was not to be taken as a superior trait.





Doctors warned the upper classes, that though the women from the lower classes may seem healthy and not suffer from uterine diseases, they were still of inferior origin because they spread diseases. The danger was considered especially great as women worked as maids in the homes of the upper classes and also 'polluted' the upper class males by enticing them through prostitution. These women according to the medical profession, were not sick themselves but were 'sickening' to the upper classes. Thus, medical theory proposed two separate biological reasons to explain and justify the social roles of women from these two classes.

## Medicine's view of women's health problems

Both these oppressive social roles had their own effects on the health of the women. For the upper class women their boredom and confinement

"... fostered a morbid cult of hypochondria—'female invalidism' that began in the mid nineteenth century and did not completely fade until the 1910's. Sickness pervaded upper and upper-middle class female culture. Health spa's and female specialists sprang up everywhere and became part of the regular circuit of fashionable women. It was acceptable, even fashionable, to retire to bed with 'sick headaches', 'nerves' and a host of other mysterious ailments." (Ehrenreich & English).

This female invalidism was encouraged by the medical profession of that time because it was in their economic interest to do so. Doctors found it a good way of accumulating wealth since these sick women were

from the upper classes and could afford the long and expensive treatment prescribed by them. The medical profession encouraged 'female invalidism' by proposing that women from the upper classes were by **nature** sick. According to this theory, the ovaries and uterus of a woman often ended up in dominating her whole body so that she was continuously and constantly sick (which also was reason enough to prevent her from entering the men's world). Complaints ranging from headaches, sore throats, indigestion, bad posture to curvature of the spine were all blamed on the female reproductive organs.

For women from the labouring classes, the social conditions in which they lived resulted in a host of diseases. In reality, it was these women who were really sick because of undernutrition and bad working and living conditions. But as we saw in chapter 2 of this section, it was not in the interest of either the medical profession or the businessmen to focus their attention on the primary causes of ill health in this section of the population. Instead, they warned the upper classes not to mix freely with the women from the lower classes as they could spread diseases.

In the late nineteenth and early twentieth centuries, at the height of female invalidism, the biological interpretation shifted grounds. With the development of psychoanalysis, women were no longer seen as being inherently weak or sick. Rather, according to the theory now proposed, most of the illnesses had their roots in the unconscious mind and were not due to any physical attribute. For instance, hysteria which was earlier thought to be caused by a malfunctioning uterus, now began to be seen as an act of rebellion by women who were unable to accept their socially determined role. Therapy for such acts of rebellion consisted of getting the woman patient to 'confess' her



NATURALLY!



resentments and rebelliousness and then to accept her role as a woman.

Thus, the psychoanalytical theories too, in no way changed the fundamental belief that the woman's main function was to reproduce. These theories continued to uphold the view that the female personality was defective; but this time the defectiveness was due to the inadequacy women felt because of the lack of the male sexual organ (penis) rather than due to the presence of a dominant female reproductive organ, i.e., the uterus.

However, the theories of psychoanalysis were, in a way, a breakthrough for women, since they recognised that women were not really defective physically but were in fact using the sick role as an expression of their resentments against a role (that of mother and wife) which had been imposed on them. But instead of helping women to break out of their oppressive role, the psychoanalytical theories helped to reinforce social expectations by stating that it was unnatural for women to rebel against their 'natural role'.

The upper class women were thus left with few activities into which they could channelize their energies. They were actively prevented from participating in intellectual or economic activities which were open to the men of their class. Indulging in the 'sick role' was also not a pleasant experience as medical treatment often ranged from prolonged isolation to the surgical removal of the ovaries. For women who neither wanted to play the 'sick role' nor were content to just bear children, life held few options.

## Emergence of Nursing as an occupation considered suitable for women

It was in this social context that new occupations con-

sidered suitable for women began to be created.

These occupations were basically an extension of the woman's role within the family into the outside world. Nursing was one such occupation which became a respectable profession for the women of the upper classes. Women healers had by then been eliminated by the 'regular' doctors from the upper classes. Though doctors had gained monopoly over the practice of medicine, the care of sick persons continued to take place in the individual homes.

The doctor visited the sick person and advised the family members on the appropriate care that was to be given. Members of the family, especially the women, carried out the tasks of feeding and taking care of the sick person. The few hospitals that existed, catered to the large number of sick persons from the poorer sections of the population. The conditions in these hospitals were terrible and it was reported that in 1870 an investigating committee could not find even a bar of soap in a hospital in New York. These hospitals also employed a few women to look after the dying but these women were generally drunken, and indulged in prostitution and thievery.

Florence Nightingale, considered the founder of modern nursing, decided to bring about a reform in these disreputable hospitals. Born in an upper class family, she was very much a product of the society which did not allow women from her class to lead an active life outside their homes. Faced with the prospect of a long and useless spinsterhood when she was in her thirties, she decided to focus her energies on the care of the sick. It was quite obvious that there was much that needed to be done to make the hospitals habitable. The rooms had to be cleaned, the dirty linen washed and the sick had to be taken care of. Since these tasks had traditionally been carried out by



women, it was considered that doing this outside the home too was just an extension of women's 'natural' abilities.

To make this acceptable to doctors and to attract other women from upper classes, Florence Nightingale gave a completely new image to this occupation. She insisted that women taking up this occupation were to show absolute obedience to the doctors and they were to be of 'good character'. At first the male doctors were a little doubtful about women taking up this occupation. But when these women demonstrated their acceptance of doctors' authority, the doctors were won over. For instance, in 1854, in the battle front of a Crimean war, Florence Nightingale took a few of her women to take care of the sick.

"When she first arrived in the Crimea with her newly trained nurses, the doctors at first ignored them all. Nightingale refused to let her women lift a finger to help the thousands of sick and wounded soldiers until doctors gave an order. Impressed, the doctors finally relented and set the nurses to cleaning up the hospital." (Ehrenreich & English).

Nursing thus became an acceptable profession for women from the upper class. It was seen to be a 'natural' vocation for women as this ability of taking care of the sick was a quality of womanhood. Since women were the bearers and nurturers of children, it was thought that they were merely extending this quality to the sick by taking care of them. A woman was considered to be an 'instinctive' nurse and this instinct was supposed to be from 'mother nature'.

106 It was also thought that since nursing did not tax the mental abilities of the woman, it was biologically well

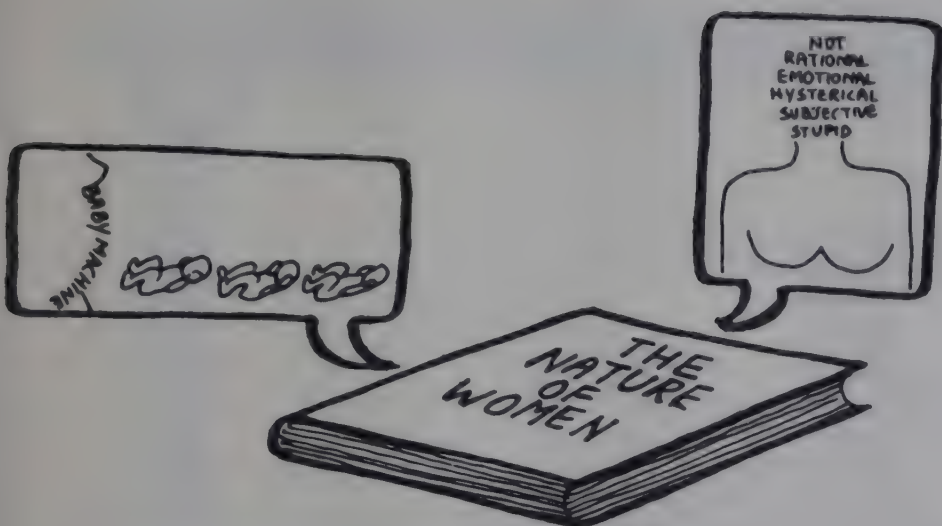
within her capacity to undertake these tasks. However, it is important to remember that though women were considered to be fit for nursing, they were considered unfit to become doctors. Florence Nightingale too objected to the idea of women becoming doctors. She wrote about the few women doctors of her time, "they have only tried to be men, and they have only succeeded in being third-rate men." (Ehrenreich & English).

Since nursing was supposed to come 'naturally' to a woman, it did not have the same prestige or status enjoyed by doctors. Further, it was thought unnecessary by doctors to share knowledge of diagnosis and treatment with nurses as their first task was to obey the doctors orders faithfully. Nursing also benefited doctors as they could now delegate all the routine, monotonous and boring jobs to the nurse.

"The new physician was even less likely than his predecessors to stand around and watch the progress of his 'cures'. He diagnosed, prescribed and moved on. He could not waste his talents, or his expensive academic training in the tedious details of bedside care. For this he needed a patient, obedient helper, someone who was not above the menial tasks, in short a nurse." (Ehrenreich & English).

Thus, even when women from the upper class attempted to move out of their homes, they were able to do it only by taking up an occupation which was a mere extension of their role within the family. Just as they had little control over their lives as wives and mothers, in these occupations too, they had hardly any decision-making powers. For the women from the poorer classes, these restrictions did not apply. They were expected





to contribute their labour, at whatever cost to their own health, so that the upper classes could accumulate wealth.

Today, women are no longer allowed to play the sick role that the earlier society permitted. This change in expectation has been in keeping with the change that has taken place in the social role of women in western countries. Women are expected to take an active interest in their children, play an active role as sexual partners to their husbands, take care of all the tasks that need to be done within their homes and sometimes work outside their homes as well. A woman cannot perform these functions if she is sickly. Hence when a doctor cannot find a specific immediate cause for a woman's complaint he is quick to diagnose it as being psychosomatic. Treatment in such cases generally consist of tranquilizers or sedatives. This is also true for the complaints women might have due to exhaustion resulting from overwork.

To sum up, throughout, medical theories have been proposed to justify the role women are expected to play. Earlier women were considered physically sick, today their sickness is considered to be a product of their imagination. Earlier doctors advised women to confine their energies so that they could perform their reproductive functions properly, today doctors advise women not to rebel against their reproductive role and to accept it as their biological destiny. On the other hand, for the women of the lower classes, medical theories have little to offer.

Medicine has not helped women from these classes to break out of their oppressive role by pointing out the primary causes of their illhealth. Instead, medicine reflects the dominant viewpoint existing in society today by focussing on what is considered their 'irres-

possible' reproductive behaviour. This can be seen clearly by the aggressive promotion of family planning methods which are primarily aimed at these women. This overemphasis on family planning has been at the neglect of their basic health needs (for details see chapter 7 of section III).

The above discussion on the way medicine views women is only one of the several ways in which medicine justifies inequality among human beings. Medicine has also provided biological explanations to justify inequality between races and between the rich and poor.

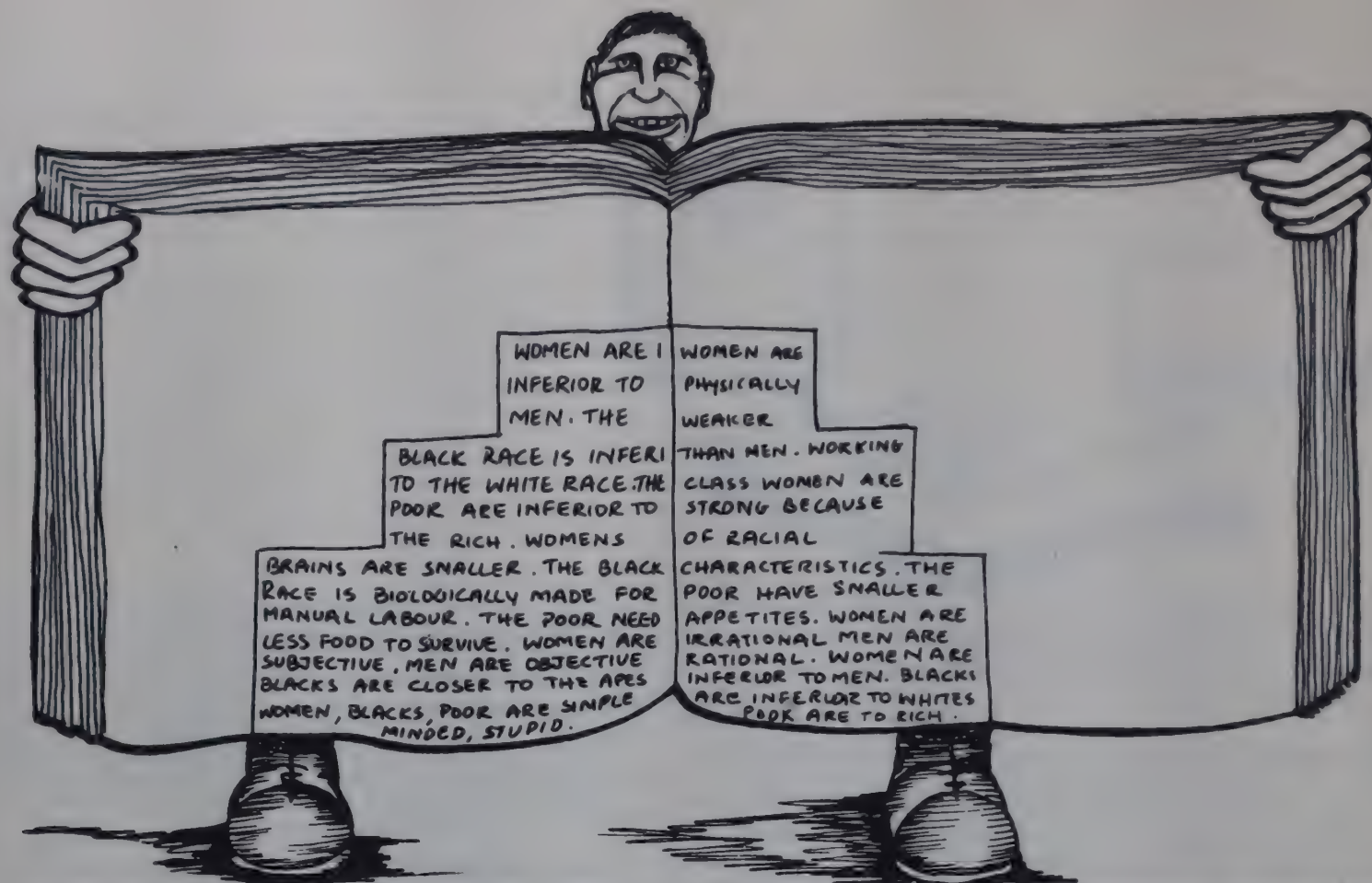
## Impact of these theories on health services

The implication of this view of women by the medical profession has resulted in a strong bias against women in the teaching and practice of medicine. This bias exists even today as can be seen by an examination of current medical literature.

Doctors continue to view women patients as hysterical, irrational and incapable of making decisions.

"...patients in most medical school lectures are referred to exclusively by the male pronoun 'he'. There is however one notable exception: in discussing a hypothetical patient whose disease is of psychogenic origin, the lecturer often automatically uses 'she'. For it is widely taught, both explicitly and implicitly, that women patients (when they received notice at all) have uninteresting illness, are unreliable historians and are beset by such emotionality that their symptoms are unlikely to reflect 'real' disease." (Howell)





Data also supports the argument that male physicians take medical illness more seriously in men than in women. A study was made of physicians' response to five common complaints in a sample of 104 men and women (52 married couples). The study was done by evaluating patients' cards prepared by the physicians. It was found that for the total group of complaints (back pain, headache, dizziness, chest pain and fatigue) the physicians' workups were significantly more extensive for men than they were for women. (Armetage et al).

The following quote also shows how women's gynaecological complaints are seen as unimportant and not worthy of medical attention.

"Majority of the women in our country are housewives. In most of the other countries women do as much office work as men and in addition do the duties of housewives. Thus Indian women have more 'spare time'. Since majority of them have no other activities or hobbies and do not do any reading (being uneducated) they spend most of their spare time concentrating on their vaginal discharge." (Kapoor).

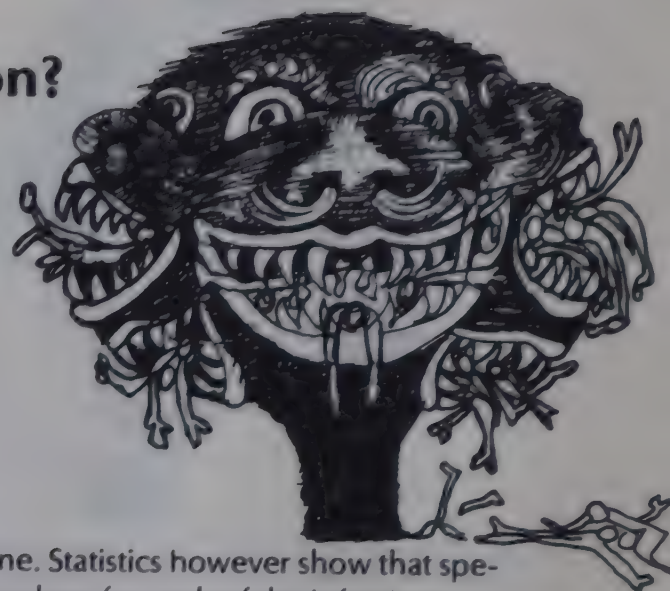
charge) is the only common gynaecological problem discussed in this book.

The medical profession also pays little attention to the health problems of working class women, who form the majority of women in India. The health problems of these women are mainly related to their poverty and their inferior status within Indian society. However health services attempt to reach these women only when they are pregnant, delivering or lactating. The focus is on either helping women to perform their reproductive function properly or in controlling their fertility. In doing this, the medical profession once again, reflects the dominant values in Indian society (see chapter 3 of section III).

The dominant social values of inequality are reflected within the health care system too. Just as nurses are considered inferior to doctors, so also the interaction between the other health functionaries is one of inequality. This is not because the functions performed by each within the medical hierarchy is inherently inferior or superior. It is the **value** that is placed on each of these activities that makes them superior or inferior. Doctoring is considered superior because it is associated with intellectual work and nursing is considered inferior because it is associated with manual work. But in this separation the fact that healing consists of both curing and caring and that both are equally important is forgotten.



## 4 : How effective is modern medicine in improving the health status of a population?



So far we have seen how modern medicine has served the economic and political interests of powerful groups in society. It could be argued that, the financial support of businessmen promoted medical research and helped modern medicine to develop to such a great extent. It is this development which is responsible for the potent remedies and techniques that modern medicine has today. So it may seem that even though modern medicine has served the interests of those in power, it has also helped greatly in bringing down morbidity and mortality.

This chapter looks at the extent to which modern medicine has been responsible in improving the health status of a population.

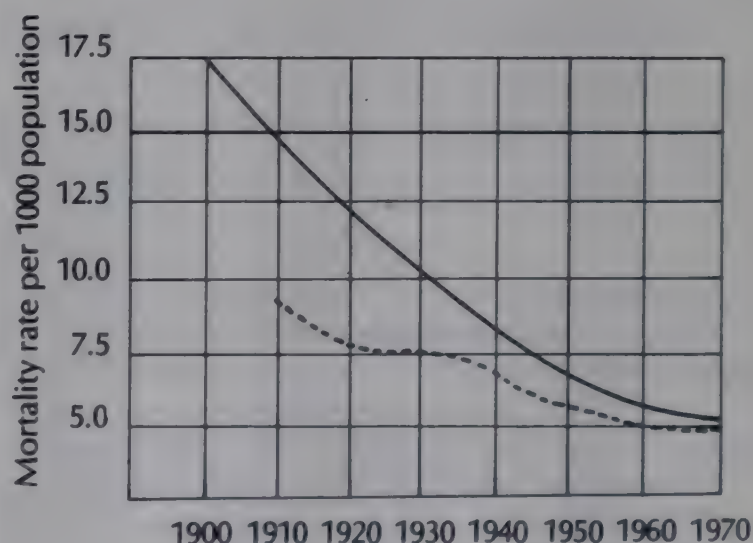
### Impact of modern medicine on the health of the people in Western countries

In Western countries, the health status of the people improved greatly at the time when modern medicine was developing. It has therefore been generally assumed that modern medicine was largely responsible for this improvement. However, the evidence shows that modern medicine had a very small part in reducing mortality in these countries. For instance, at the beginning of this century, infectious diseases were the major cause of morbidity and mortality in the United States of America (U.S.A.). Since then, a dramatic reduction in mortality due to these diseases has taken place. It is this reduction that has reflected itself as the sharp decline in overall mortality (see graph I).

The present faith in modern medicine rests on the belief that medical technology (i.e., drugs, vaccines, diagnostic aids, surgical equipment etc.) was respon-

sible for this decline. Statistics however show that specific medical technology for each of the infectious diseases developed after a major decline in morbidity and mortality had already taken place. The mortality graphs for each of the major infectious diseases in the U.S.A. clearly brings out this point.

**Graph I : Mortality rates for the U.S.A. 1900-1973**

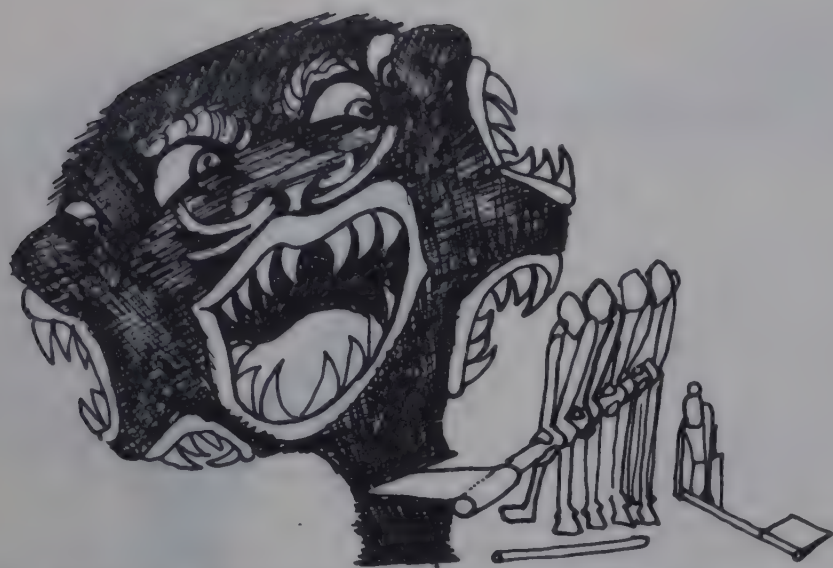


— Mortality rates **including** the eleven major infectious diseases.

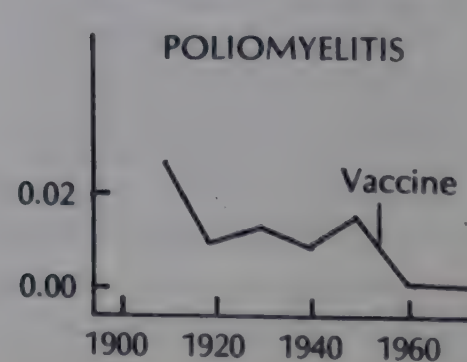
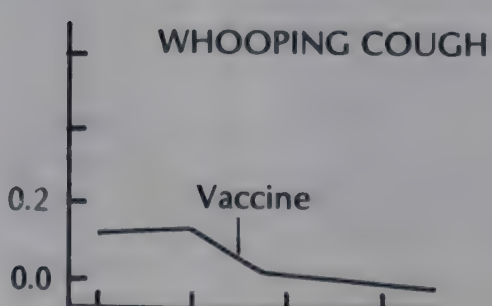
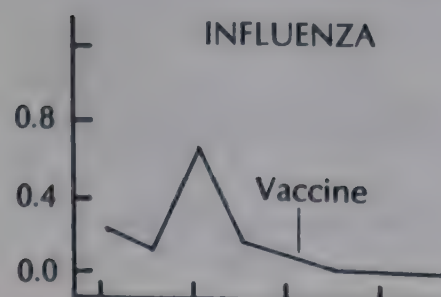
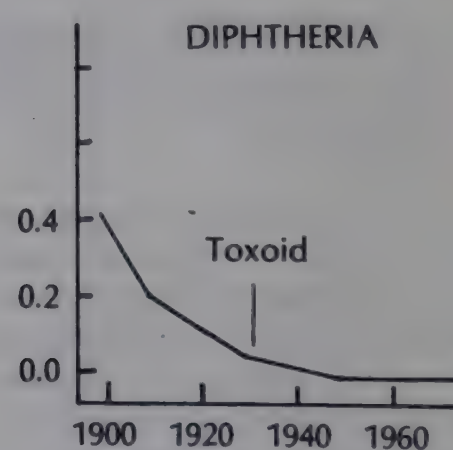
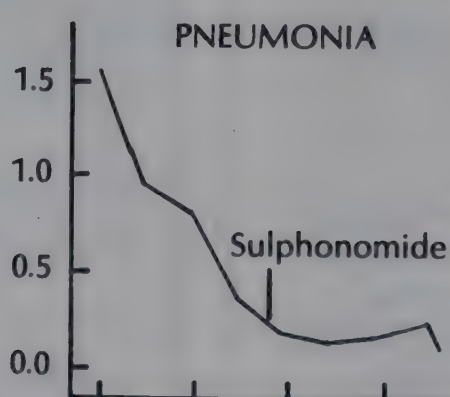
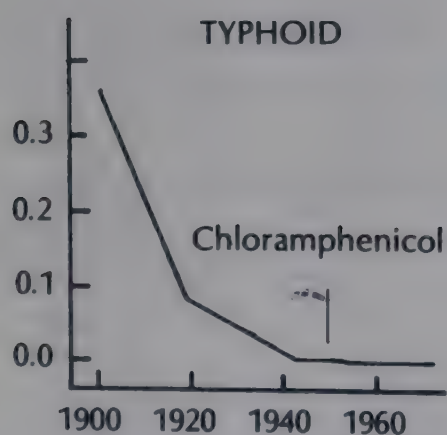
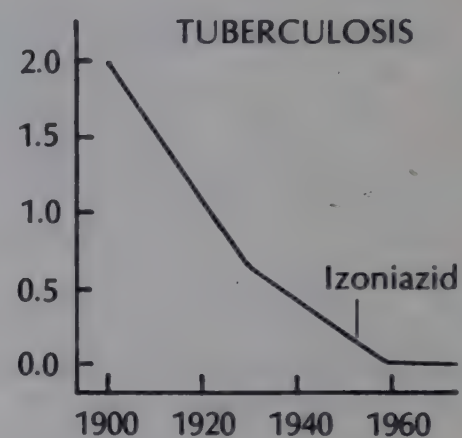
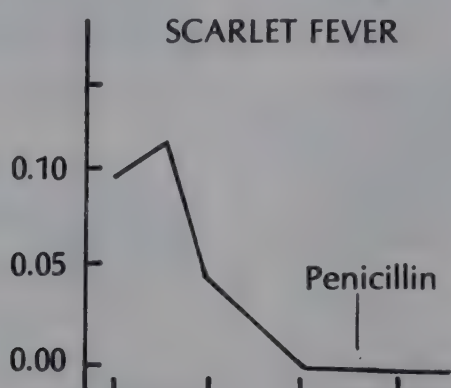
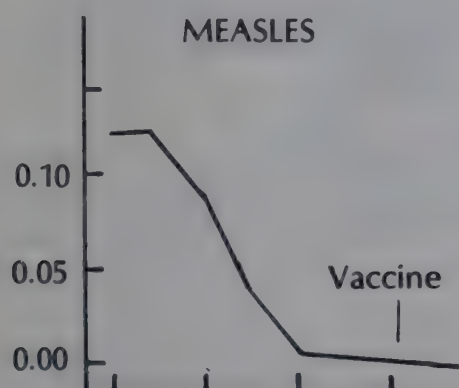
.... Mortality rates **excluding** the eleven major infectious diseases.

Source: *The Sociology of Health & Illness*, Conrad & Kern, 1981.

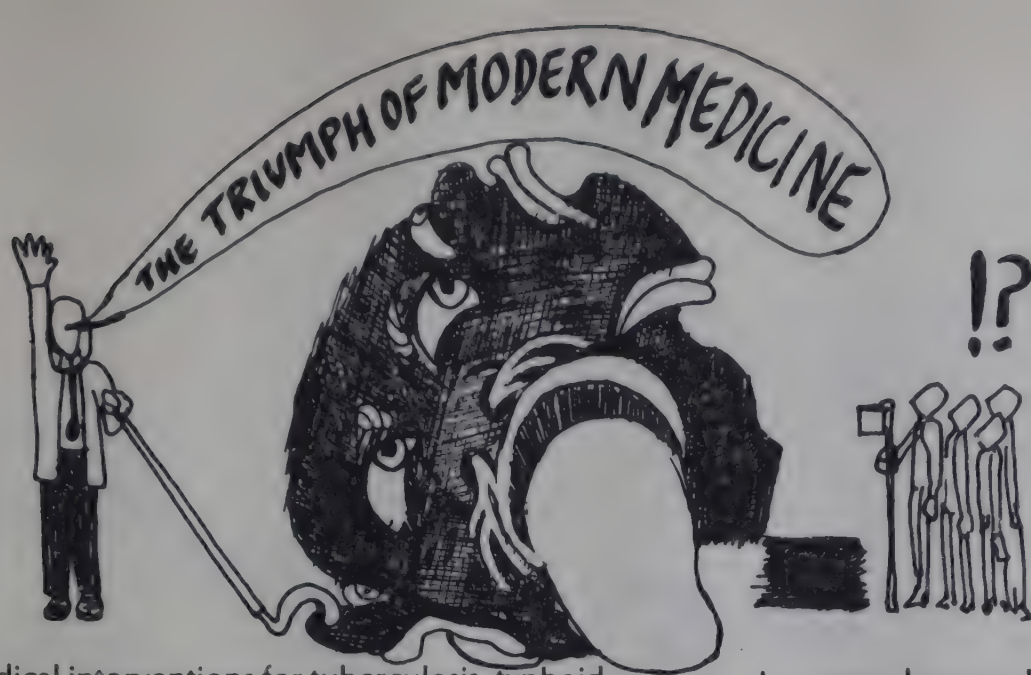




**GRAPH II: Decrease in mortality rates due to infectious diseases in relation to specific medical measures for the U.S.A. 1900-1973.**







Medical interventions for tuberculosis, typhoid, measles and scarlet fever were introduced when death rates for each of these diseases were already negligible. Medical interventions for the other diseases were introduced while the death rate for each of them was still high. However, none of these death rates, except polio, showed the sharp decline that would have been expected if medical intervention had had an impact (see graph II). In fact, it has been estimated that only 3.5% of the decline in mortality due to infectious diseases took place because of medical interventions.

Infectious diseases are no longer the major 'killers' in the U.S.A. However, these diseases are being replaced by newer 'killer' diseases like cancer, heart diseases and stroke. These newer diseases are beginning to reverse mortality trends there. At present medical technology does not have any effective solutions to these problems.

Taken together this means that modern medicine has not really had a major impact in improving the health status of people in western countries. Till now, neither has it helped in bringing down mortality due to infectious diseases (as is popularly believed) nor has it helped to control the newer diseases which presently account for a major portion of mortality.

## Impact of modern medicine on the health of the people in India

It is generally believed that the mass control of diseases such as smallpox, cholera, plague, malaria and the widespread use of antibiotics, insecticides and other technologies have helped to improve the health status of people in India. As a result, death rates in India have

come down and the life expectancy of an average Indian has increased.

Mortality statistics however show that the death rates in India also followed the same trend as in the U.S.A. The death rates in India began to decline long before any effective medical technologies were available or used in the country. It therefore follows that modern medicine could not have been the reason for this decline.

As we have seen earlier, medical technology for the prevalent diseases (D.P.T. vaccination, antibiotics etc.) developed only in the beginning of the twentieth century. At that time, the use of modern medicine was restricted mainly to the British population living in India and to a small minority of the Indian population belonging to the richer sections. Vaccinations against smallpox and cholera were the only specific medical technologies that were available and extended to the rest of the Indian population.

The smallpox vaccination had been introduced into India in the 1830's, and a vaccination act was passed in 1880. However, even by 1940, primary vaccination had been made compulsory only in about 81% of the towns and 62% of the villages. Although smallpox was considered a major disease in India, it accounted for only 0.1 to 0.8 deaths per thousand population between the years 1880 to 1940. This disease was perhaps considered major because the League of Nations had reported that the rate of incidence of smallpox in India was the highest among all the countries for which statistics were available. But in the context of overall death rates in India, smallpox was not a major disease.

Cholera was another important disease which caused epidemics. The vaccine against this disease had been developed by 1892. Although vaccination against cho-



Cholera was not compulsory in India, it was popular enough during epidemics for the people to get themselves vaccinated voluntarily. The death rate due to cholera was between 2 to 8 times the average death rate for smallpox. But recent research has pointed out that cholera vaccination during cholera epidemics is of little value in preventing epidemics.

"In recent years, doubts have been raised about the usefulness of cholera vaccine as a preventive measure. The existing vaccines do not prevent the introduction of cholera into a country or interrupt transmission; they do not prevent the development of the carrier state or affect the severity of the disease. They are of no value in controlling epidemics. They have no effect on the frequency of inapparent infection. Furthermore, the vaccination programmes usually do not adequately reach the most susceptible segment of the population. On the other hand, anti-cholera immuniza-

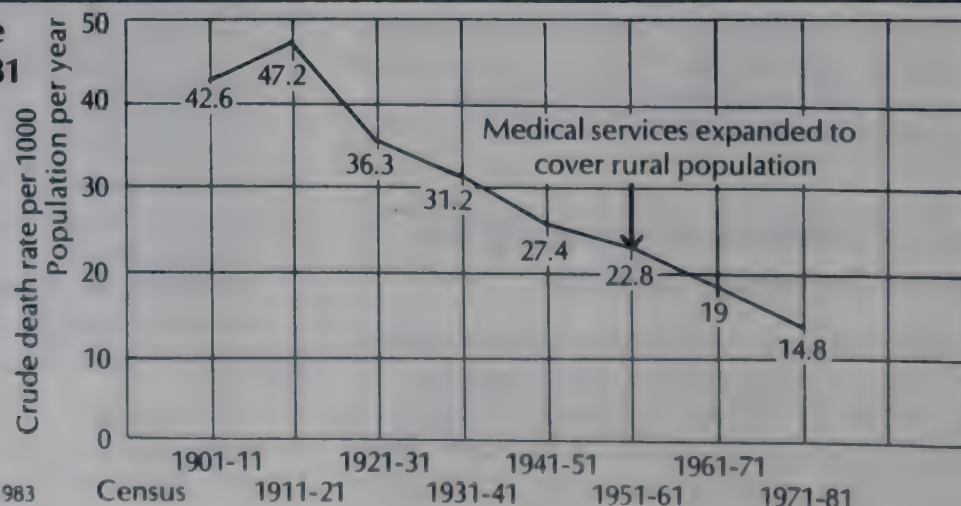
tion has created in the past a false sense of security to both recipients and health administrators." (Park & Park)

Thus, although cholera was a disease which caused major epidemics, and cholera vaccination was widely used during these times, vaccination was really of little value in preventing deaths during the epidemics.

Similarly, plague, another major disease in India, was also not controlled through medical technology. Firstly, the popularity of the anti-plague vaccine among the general population arose only after the incidence of plague had already begun to decline. Secondly, the rat control programme was given far too little attention to have made any impact.

But in spite of the fact that most medical technologies were not available in India, and even the available technologies were either not effective or not available to the general population, death rates in India began to decline from 1921 onwards as the following graph shows. (see Graph III).

**GRAPH III : Crude death rate in India, 1901-1981**







### Average annual deaths in British India (excluding Burma) 1932-1941

Disease	Average annual deaths	%
Fevers (including malaria)	36,22,869	58.4
Respiratory diseases including tuberculosis	4,71,802	7.6
Dysentery and diarrhoea	2,61,924	4.2
Cholera	1,44,924	2.4
Smallpox	69,474	1.1
Plague	30,932	0.5
Other causes	15,99,490	25.8
<b>TOTAL</b>	<b>62,01,434</b>	<b>100</b>

The three diseases cholera, smallpox and accounted for only 4.0% of the total mortality during the period 1932 - 41

Source : Bhore Committee, Vol I, 1946.

The facilities and services of medical technology were extended to the general population only after India gained Independence in 1947. If technology had made an impact on the health status of the population, there should have been a sharper decline in death rates in the period after Independence. But, as can be seen from the graph, this was not the case. In fact the death rates have declined at a slower rate in the 30 years following Independence as compared to the decline in death rates during the 30 years before Independence.

This apparent ineffectiveness of medical technology to reduce mortality in developing countries like India, is often taken to be the result of inadequate medical coverage. It is often stated that our country is too poor to afford the cost of using medical technology at its optimum level. But as the following example shows, even when large resources were allocated for a speci-

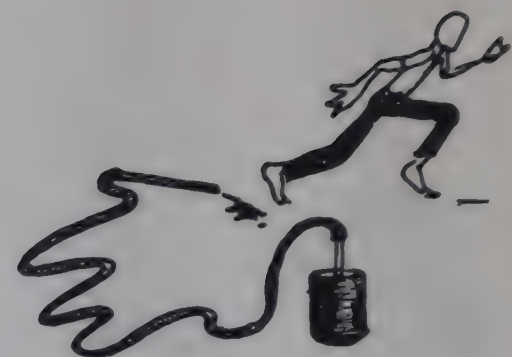
fic programme, the impact of the specific technology was still limited.

Between 1932 and 1941, malaria was the major cause of deaths in India. Though specific anti-malarial drugs such as quinine and mepacrine were available at that time, these were distributed only to a small section of the people. In 1939, it was discovered that DDT could be used to eliminate the transmitter of malaria, i.e., the anopheles mosquito. This discovery was considered a major breakthrough and many countries with a high incidence of malaria adopted the use of DDT as an anti-mosquito measure. In India large scale pilot studies were conducted to study the effectiveness of this method. It was found that, if two rounds of DDT were sprayed during the transmission season (July to November), malaria could be controlled at a reasonable cost.

In 1953, the National Malaria Control Programme (NMCP) was launched in India. This programme proved highly successful and the incidence of malaria decreased significantly. But other countries which had tried out this strategy soon reported that the mosquitoes were developing resistance to DDT. Because of these reports WHO decided to launch a campaign to eradicate malaria throughout the world.

In 1958, India too changed its strategy from one of control to that of eradication. However, in India too, the mosquitoes soon adapted to the presence of DDT in the environment, undermining the hope that malaria could be eradicated. The widespread use of anti malarial drugs also created resistance within the malarial parasite. Both these factors once again led to a rise in the incidence of malaria in India. But, this time, the earlier drugs and insecticides were no longer effective. In 1984, the WHO decided to go back to a control





programme as eradication was not possible in the near future.

The anti-malarial programme is one programme in which massive resources in terms of money and manpower have been utilized. But in spite of this, the programme did not have the expected impact. Instead the result of the anti-malarial strategy has been to produce DDT resistance and chloroquin resistance while the incidence of malaria continues to rise.

This problem of resistance due to the widespread use of medical technology has arisen with other diseases also. For instance, overuse of chloramphenicol, the only drug effective in treating typhoid created a major problem in Kerala in 1972. At that time there was a typhoid epidemic and more than 3000 cases of chloramphenicol resistant typhoid were found around Calicut. Though this epidemic subsided by the end of 1972, the affected areas of north Kerala soon became endemic for antibiotic resistant strains. In 1976 another epidemic of resistant typhoid occurred. Since 1978, drug resistant typhoid fever has been reported from other parts of India also, including cities like Madras, Bombay and Chandigarh. Similarly, in a typhoid epidemic in Mexico in 1975, 2000 people died because of chloramphenicol resistance.

Thus medical technology does not seem to have made a significant impact in a country like India either. Infectious and parasitic diseases are still the major cause of mortality in our country. Even though technology for controlling many of these diseases have been developed, these technologies have left the disease pattern in our country largely unchanged. Lack of resources is only one aspect of the problem. As we have seen, even when large amounts of resources were used for as long as 30 years to control one specific disease

(malaria), these measures achieved only a shortlived success. Death rates in India, which should have declined much faster after modern medicine came into use have actually declined at more or less the same rate as before.

Most medical interventions, as the above examples show have had limited success in improving the health status of the population. Either these technologies came at a time when mortality had declined substantially due to some other factors; or it was ineffective in dealing with the health problem; or a country was unable to afford the cost of using technology at its optimum level or it was misused and overused so that it was ineffective at the time of an epidemic.

In spite of all these limitations, modern medicine continues to be promoted as the only rational answer to ill-health. Obviously modern medicine cannot be the only answer to disease as it came into being a mere hundred years ago. Human populations have managed to survive for centuries in extremely diverse environmental conditions, without becoming extinct. It is important for us to understand the mechanisms which made this possible if we are to overcome the limitations imposed by modern medicine and evolve alternative systems of healing.

## How did human beings deal with disease before the development of modern medicine?

Human beings have continuously made changes in their way of life. This has brought them into contact with different sets of disease-producing factors in the environment. It is the tremendous capacity of human beings to adapt to these changes that has kept them





alive for so long. These adaptive mechanisms are both biological and cultural. The most well-known is the process by which human beings maintain their physiological functions despite variations in physical surroundings (e.g. heat, cold, humidity, altitude, etc.). They also have an inbuilt defence mechanism by which they are able to develop immunity to certain disease producing organisms present in their environment.

Genetic mutation is another adaptive mechanism which takes place over a long period of time. For instance, certain African populations are known to have an abnormal haemoglobin in their blood. In some individuals this abnormality displays itself as a disease called sickle cell anaemia. In others, it displays itself as the sickle cell trait which provides immunity to malaria. According to well-accepted hypothesis, individuals with this trait do not suffer from malaria because the malarial parasite finds the abnormal haemoglobin an unfavourable medium in which to develop. The sickle cell trait is thus considered to be the genetic adaptation of these African populations to the continued presence of malaria in their environment.

Each of the above adaptive mechanisms are biological in that they are the human body's natural response to disease-producing factors. Human beings also have the unique ability of adding to this natural response by consciously evolving customs and taboos which reduce their contact with disease-producing factors. This cultural adaptation develops over a period of time through observation and inference. For instance, as we said in chapter 2 of section I, people in primitive society reduced their contact with disease by placing strict social restrictions on mobility and intermingling of tribes.

The value of these customs has now been verified by scientific analysis. Each tribe had developed immunity to the disease-producing factors in their own environment. Whenever a tribe moved away to a different environment or came into contact with people from another tribe, they also came into contact with a whole new set of disease-producing factors. Since their bodies had built up no immunity to these new factors, disease spread in an epidemic form. Thus even without a 'scientific' understanding, tribes coped with the threat of disease through social customs.

These adaptations were functional only till such time as environmental conditions remained more or less the same. But changes were inevitable because human beings continuously strived to improve their way of life. With each change in their way of life they were brought into contact with a different set of disease-producing factors, and had to learn to adapt to these once again.

## **The link between disease pattern and the way of life of a population**

Studies done to trace the origins of specific diseases in human populations reveal that the disease pattern in a population is linked to the way of life adopted by that population. Thus, hunting-gathering, agricultural and industrial societies have each been associated with different disease patterns.

**Hunting-gathering** populations were small groups of highly mobile people who lived by eating whatever they could find. These populations were constantly subjected to diseases which spread from person to person without requiring an intermediate host (e.g. scabies, lice, mites and ticks, which they carried on their own body). Because of their constant mobility, they





were less susceptible to diseases which were spread by faeces or those which required an intermediate host. This is because their very mobility reduced the possibility of continuous reinfection through contact with faeces which occurs when a population is stationary and defaecates in the same place.

Similarly, diseases that required an intermediate host such as malaria could not constantly afflict the population. This was because the malaria vector, the mosquito, was not necessarily present in each area that the population shifted to. This mobility meant that such a population was exposed to a wide variety of diseases which did not assume epidemic proportions because the population kept moving.

This disease pattern changed when people took up **agriculture** as a way of life. The population was now stationary and repeatedly came into contact with the same set of disease-producing agents. Diseases caused by hookworms, roundworms, amoeba, etc. which spread through faecal contact now became a characteristic feature of this population. Storing of food grains after harvest attracted several pests like rats, cockroaches and ticks, which brought with them a new set of parasites. The taming of animals such as goats, pigs, cows and chickens for domestic use became an added source of infection.

For instance, eating inadequately cooked pork introduced the tapeworm parasite into human beings. A continuous cycle of infection and reinfection could be set up because the intermediate host, the pig, was a part of the agricultural household. Diseases such as bovine TB, anthrax and rabies also became part of the disease pattern in this society because of the domestication of animals. Agricultural societies were therefore subject to a smaller range of diseases than hunting-

gathering populations. However, because of their stationary way of life the same diseases could spread throughout that population because of the process of infection and reinfection.

With the emergence of **industrial society** the disease pattern once again changed. A large part of the population was no longer involved in agricultural activity and therefore was not in contact with the disease-producing agents of that environment. Food was produced on a large scale and it became necessary to use chemical agents such as artificial fertilizers and insecticides. Food grown in this way becomes contaminated with these chemical agents. Disease-producing chemical agents are thus being consumed along with the food, creating biochemical changes in the human body never experienced before.

As people in this society no longer produce food for themselves they have to buy it. The amount of food purchased by them is determined by their wages. Because of the wide disparities in wages there are some people who are able to consume much more than they require while the others cannot purchase even the minimum food required. Nutritional diseases are thus a common feature of this society, both because of undernutrition and over consumption of food.

Artificially produced food stuffs, colouring agents, preservatives, and highly processed foods, all of which are widely promoted through aggressive advertising, are also responsible for the health problems in the population. This is because of their low nutritional value and their potential to cause cancer.

Industrial society is also characterized by a concentration of a large number of people in urban cities. This concentration of the population in one place, provides one of the preconditions for infectious diseases such as





measles, mumps, smallpox, whooping cough, influenza etc. to exist in endemic form. For instance, it has been calculated that a population of 10,00,000 living in close proximity, is necessary for measles to become endemic in that population.

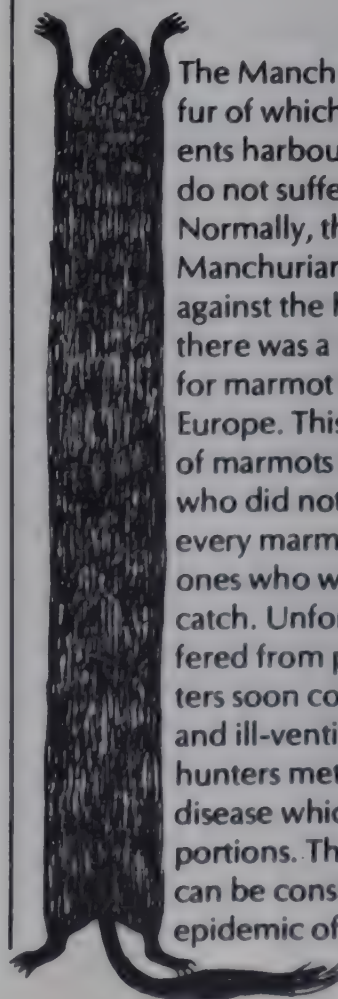
Industrial society has also reduced the necessity for physical labour which was required in agricultural and hunting-gathering societies. This, combined with over-consumption of food has led to the presence of heart disease, stroke, etc. in significant proportions. The environment in the factories exposes the workers to chemical agents (dust, cotton fibre, acids, metals) and physical agents (noise, vibration, heat, humidity) in very high doses. Constant exposure to one or more of these agents has resulted in the workers being affected by diseases ranging from physical disability to cancer.

The values inherent in industrial society have also added new disease factors to the environment. The impersonal attitude of people, the breakdown of family ties, the constant urge to compete and accumulate money in a fast-changing environment, are all factors that produce stress in the human mind. The effect of stress on the disease process is only recently being studied. Hypertension, peptic ulcer etc. are known to be produced in this way.

Industrial society is unique in that many of its diseases are human-made. As the examples of the three different societies show, the same diseases may have been present in each society. However, the way of life in each society created a particular set of conditions because of which certain diseases assumed a greater proportion than before. The quantum of disease (morbidity) was the greatest when the population was changing from one way of life to another.

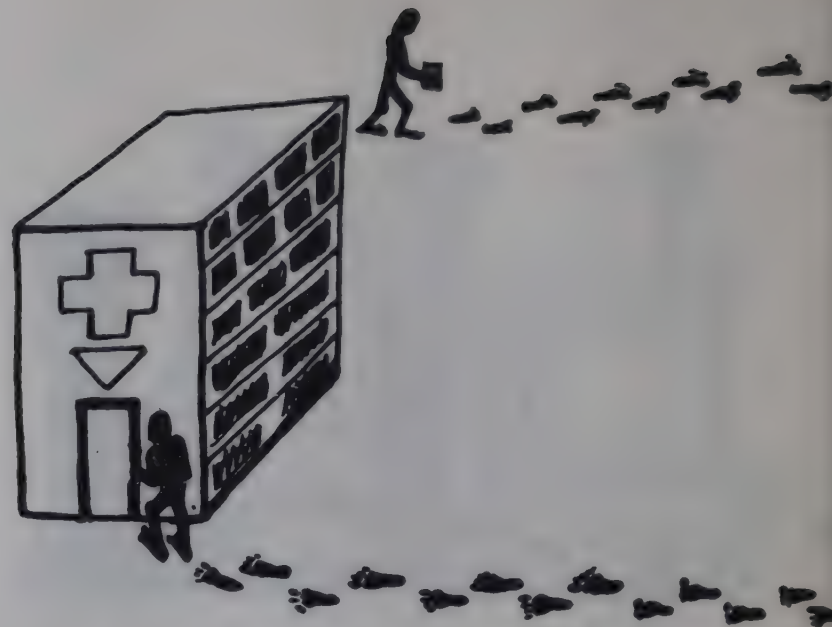
This high incidence of morbidity continued till the

population stabilized and adapted to the new environment. Once the population stabilized, living conditions, nutritional levels, mobility, degree of contact with disease agents, density of populations, inter-relationship between different individuals and many such factors constantly interacted with each other. A particular disease occurred in significant proportions only when this inter-relationship of factors in a particular society created conditions favourable for that disease. The outbreak of pneumonic plague in the Chinese state of Manchuria in 1910 is a good example to illustrate this point.



The Manchurian marmot is a wild rodent, the fur of which is used for clothing. These rodents harbour the plague bacillus but usually do not suffer from the infection themselves. Normally, the marmot was hunted only by the Manchurians, who followed strict taboos against the hunting of sick animals. In 1910, there was a sudden increase in the demand for marmot fur, due to a change in fashions in Europe. This led to an indiscriminate hunting of marmots by inexperienced Chinese hunters who did not follow the taboo. They trapped every marmot they could, especially the sick ones who were slower and therefore easier to catch. Unfortunately, these sick marmots suffered from plague and several Chinese hunters soon contracted the disease. Crowded and ill-ventilated Manchurian inns, where the hunters met, helped in the quick spread of the disease which soon assumed epidemic proportions. Thus, a change in fashions in Europe can be considered responsible for causing an epidemic of pneumonic plague in Manchuria.





From this example we can see that all the necessary conditions for plague to spread in Manchuria were present even before 1910. The marmot harboured the plague bacillus; the Manchurians hunted the marmot; the hunters met in ill-ventilated and crowded inns. However, the presence of these conditions alone was not sufficient to produce an epidemic of plague. Only when the factor of increased demand for marmot fur which led to the indiscriminate killing of sick animals, was added to the list of factors already present, did plague break out as an epidemic.

The above example also shows that it is possible for human beings to live in the midst of disease-producing agents without becoming diseased. Each disease requires a chain of conditions and as long as even one condition is absent, disease will not occur. It is this mechanism which has made it possible for human populations to adapt both biologically and culturally to diverse environmental conditions without getting wiped out. It is from an understanding of this process that traditional cultures developed the idea of illhealth as the falling out of harmony with the environment. And it is a lack of this understanding which prevents industrial society from perceiving the imbalances being created by adopting technological solutions.

## Limitations of modern medicine

If we look at the problem of illhealth in a population, there are two aspects to dealing with the problem of disease. One aspect is to deal with disease after it has occurred. The other is to prevent disease from occurring.

In order to deal with the first aspect, i.e., curing disease, there needs to be a clear understanding of the **disease**

118 **process.** In other words one needs to understand the

precise changes that take place within the body due to disease, and to find ways of reversing these changes.

In order to deal with the other aspect, i.e., preventing disease, there needs to be a clear understanding of disease **causation**. In other words one needs to understand all the conditions which are responsible for causing a disease and to find ways of altering these conditions.

Interventions to deal with disease can therefore be made at several levels.

- \* **Interventions at the individual levels that bring about changes within the human body either to relieve symptoms, or cure the disease or prevent the disease.**
- \* **Interventions at the intermediate level that bring about changes in the immediate environment.**
- \* **Interventions at the primary level that bring about changes in society.**

For example, the interventions for malaria could be as follows :

1. Bringing about changes within the body by giving anti-malaria drugs such as chloroquin.
2. Bringing about changes in the immediate environment by killing mosquitoes, or preventing them from breeding.
3. Bringing about changes in society so that economic development projects such as dams, irrigation projects etc. do not create conditions for mosquitoes to breed.

Similarly in the case of a non-communicable disease such as peptic ulcer, interventions could be as follows :

1. Bringing about changes within the body by





using drugs such as antacids, surgery or by taking a proper diet, etc.

2. Bringing about changes in the immediate environment by altering stress producing interactions within the family and the work place.
3. Bringing about changes within society so that the way of life is least stressful for the entire population.

Before the development of modern medicine people did not have powerful means to deal with disease after it had occurred. They were therefore forced to develop an understanding of disease causation and to deal with disease at the social level, i.e., through social restrictions, taboos, etc. However with the development of modern scientific methods (both in terms of systematic collection of information and in the development of equipment such as the microscope) it was possible to study the disease process within the individual and develop effective methods of coping with it.

Modern medicine therefore developed powerful remedies and therapeutic techniques (such as drugs & surgery) to deal with disease within the human body. Preventive measures such as vaccination and chemotherapy also dealt with disease at the individual level and through this attempted to manipulate the environment. None of the techniques of modern medicine attempted to control disease at the primary level, i.e., the social level.

Modern medicine thus created the belief that it is possible for individuals to control disease by bringing about changes within the body and within the immediate environment.

However, since individuals do not live in isolation and are very much affected by the way in which society is

organized, even interventions at the individual or intermediate level are not strictly speaking within the control of the individual alone. For instance, disease can be technically prevented by vaccination within the individual body, provided that the social organization is such that vaccination is available to everyone.

But as we have already seen, a large majority of people in our country do not have access to these services. Therefore an intervention such as vaccination becomes meaningless in this situation. Since the health and welfare of an individual is inextricably tied up with the rest of society, interventions (at any level) are meaningful only if conditions in society are conducive to health.

Further, by intervening at just one level in dealing with a particular health problem, modern medicine often creates several other problems in the process. For example,

“Between 1945 and 1970 in the U.S.A. approximately 3 million women were given DES (diethyl stilbestrol, a synthetic hormone) to prevent miscarriage even though medical literature contained six scientific reports that DES was ineffective in preventing spontaneous abortions.

In 1970, a rare form of vaginal cancer was reported in the female children of women who had taken this drug during pregnancy. Until that time this form of cancer was unknown in teenage girls and was unusual even in older women. This cancer does not respond to any treatment and usually proves fatal in a very short time. One quarter of those who developed this cancer died within 18 months of diagnosis.



Rough estimates show that one out of every 250 DES daughters may suffer from this cancer by the age of 30, and one out of every 25 DES daughters may develop a less malignant form of cancer. Overall, up to half of all DES daughters may need at least minor surgery in their twenties." (Ruzek)

This intervention (DES) may have dealt with the problem of miscarriage (which in itself is doubtful) but in the process it created a far more serious disease which was not only unforeseen but also need not have existed among the daughters of these women.

To take another example,

"In an attempt to control malaria in Borneo, insecticides such as DDT were used to kill mosquitoes. Apart from killing the mosquitoes, the large quantities of DDT in the environment were absorbed by other insects such as cockroaches. The cockroaches themselves were not affected by DDT but the geckoes (a kind of lizard) which fed on these cockroaches became lethargic and as a result were easily caught by the cats.

The cats which fed on the geckoes died as a result of the DDT. The reduced cat population gave a chance for rats to multiply unchecked and this threatened to cause an epidemic of bubonic plague. The matter became serious enough to make it necessary for the army to parachute cats into these jungle villages."

(Illich).

Thus, in an attempt to control malaria, the above medical intervention (DDT) threatened to bring about an epidemic of bubonic plague.

The above two examples show that the occurrence of disease is itself a chain reaction with effects on the human body being only one part of the chain. Medical interventions do try to break this chain of events. However, since these interventions are not made out of an understanding of the complete chain of events, the effects on the cycle of disease are not foreseen. The result is that modern medicine provides immediate relief but in the process creates other conditions which can also produce disease. Ultimately, the quantum of disease does not necessarily decrease. It is for this reason, that modern medicine has had a limited impact in improving the overall health status of a population.

However, in spite of these limitations, modern medicine has till now, mainly attempted to control disease within the individual and within the immediate environment. This is because modern medicine developed on the basis of certain scientific principles which were limited in themselves. The result was to create an extremely limited view of health, disease and the process of healing.

## The scientific basis of modern medicine

Modern medicine developed in the nineteenth century at a time when the world view was being shaped by scientific thought. Scientists were discovering that natural events could be described mathematically. It was believed that if all of nature could be studied in this manner it would be possible for human beings to predict and control natural events. Attempts were therefore made to study those aspects of nature which could be measured and quantified. This process involved a breaking down of the whole into its smaller units. All natural phenomena were thus seen to be



consisting of smaller and smaller units which functioned much like the parts of a machine. In doing so, the inter-relationship of each of the parts and their relationship to the whole was given little importance. Also aspects of nature which could not be measured or quantified were seen as 'subjective' and of no value.

In the words of Descartes, a philosopher of the seventeenth century,

"All science is certain, evident knowledge. We reject all knowledge which is merely probable and judge that only those things should be believed which are perfectly known and about which there can be no doubts."

Modern medicine developed on the basis of these scientific principles. The human body was viewed only as a machine and it was believed that the functioning of the body could be understood by studying the functioning of its parts. Disease was seen as the malfunctioning of some part of the human machine and treatment consisted of correcting the malfunctioning by intervening in some way either physically or chemically. Just as it was possible to identify a single cause for the breakdown of any machine it was believed that it was possible to find a single cause for disease in human beings.

The discovery and isolation of disease-producing micro-organisms fitted into the scientific thought of that time. Disease itself came to be defined as the malfunctioning of the human body which could be observed and measured. All other illnesses were seen as the subjective creation of the individual mind and therefore non-existent. This obsession with measuring and quantifying natural phenomena led to the separation of the mind from the body. The mind was a concept which could not be understood because it could

not be seen, observed, measured or broken down into its components.

As a result of this split between the mind and the body, no attempt was made to understand the effect of the mind in producing disease and its role in the healing process. Scientists have consistently tried to minimize the evidence of the inter-relationship between the mind and the body, as can be seen from the little attention given to the well-documented placebo effect.

In their search for single disease agents, medical scientists lost sight of a host of factors which are equally responsible for causing disease. For instance, they paid little attention to the many factors which are known to lower immune response thereby creating greater susceptibility to illness. Nor did they attempt to understand the adaptive mechanisms which operate in all living organisms be they human beings or disease-producing microbes. (It is this process which is chiefly responsible for creating resistance).

At a still deeper level, they did not study the dynamic balance which exists between a host of disease-causing agents and populations, a disturbance of which produces a specific disease in that population.

In keeping with the limited understanding of the functioning of the human body and the disease process, the solutions proposed by this system were therefore also limited. Medical interventions chiefly adopted the unidimensional approach, dealing with a single causative factor. For example, the medical remedy for pain is a pain killer. The answer to tetanus is to immunize everybody with tetanus toxoid irrespective of whether the person would have got tetanus or not. Taken together, the effect of scientific thought on modern medicine has been to create an extremely limited view of health, disease and the process of healing.





## The role of businessmen and other powerful groups

This limited view of modern medicine was promoted by powerful groups in society such as big businessmen and doctors because it was in their economic interest to do so. As long as the focus of modern medicine remained on the immediate causes of disease and interventions could be made at this level, it was possible to create the illusion that disease could be controlled without making changes at the social level.

If modern medicine had also given equal emphasis to the primary causes of disease it would have meant changing economic and social conditions in society.

Promoting modern medicine with its limited focus on the immediate cause of disease, was therefore in the economic interest of big businessmen.

## Summary

122 To sum up, the disease pattern in a society is related to the way of life adopted by that society. This way of life

creates its own economic and social environment. Before the development of modern medicine, traditional cultures were forced to deal with disease at the social level because they had limited means of controlling disease once it had occurred.

Modern medicine on the other hand, was able to develop powerful means of dealing with disease after it had occurred, as well as in the immediate environment. Because it developed at the time when scientific thought was shaping the world view, and because of the influence of powerful groups in society, modern medicine did not give any emphasis to the control of disease at the social level.

As a result, modern medicine takes a very narrow view of health, disease and the process of healing. In keeping with this view, the solutions adopted by it have also been limited and short-sighted. Long-term gains have often been sacrificed in favour of immediate results. It is for these reasons that modern medicine has had a limited impact in improving the health status of a population.





In this section, we have seen how the development of modern medicine was shaped by powerful groups in society. The link between medicine and business had a decisive influence on the content of medical practice and research. The financial support of businessmen also enabled the practitioners of modern medicine, i.e., doctors to become very powerful. This power made it possible for them to discredit all other systems of healing and prevent all other healers from practicing medicine.

As a result modern medicine developed in a way which served the interests of these powerful groups. The focus of modern medicine also got limited to the development of powerful remedies, and in terms of prevention, medical interventions focussed on the immediate cause of disease. These powerful interventions are undoubtedly useful in themselves and do have the capacity to reduce suffering. However, these benefits are too short-lived to bring about long term improvement in the health status of a population. For such long-term gains to be achieved, disease would have to be dealt with at the social level also.

Before the development of modern medicine traditional cultures were forced to deal with disease at the social level because they had limited means of controlling disease once it had occurred. Similarly, from the experiences of western countries where health improved before specific medical technologies had been developed, we know that even in the present society diseases can be controlled at the social level.

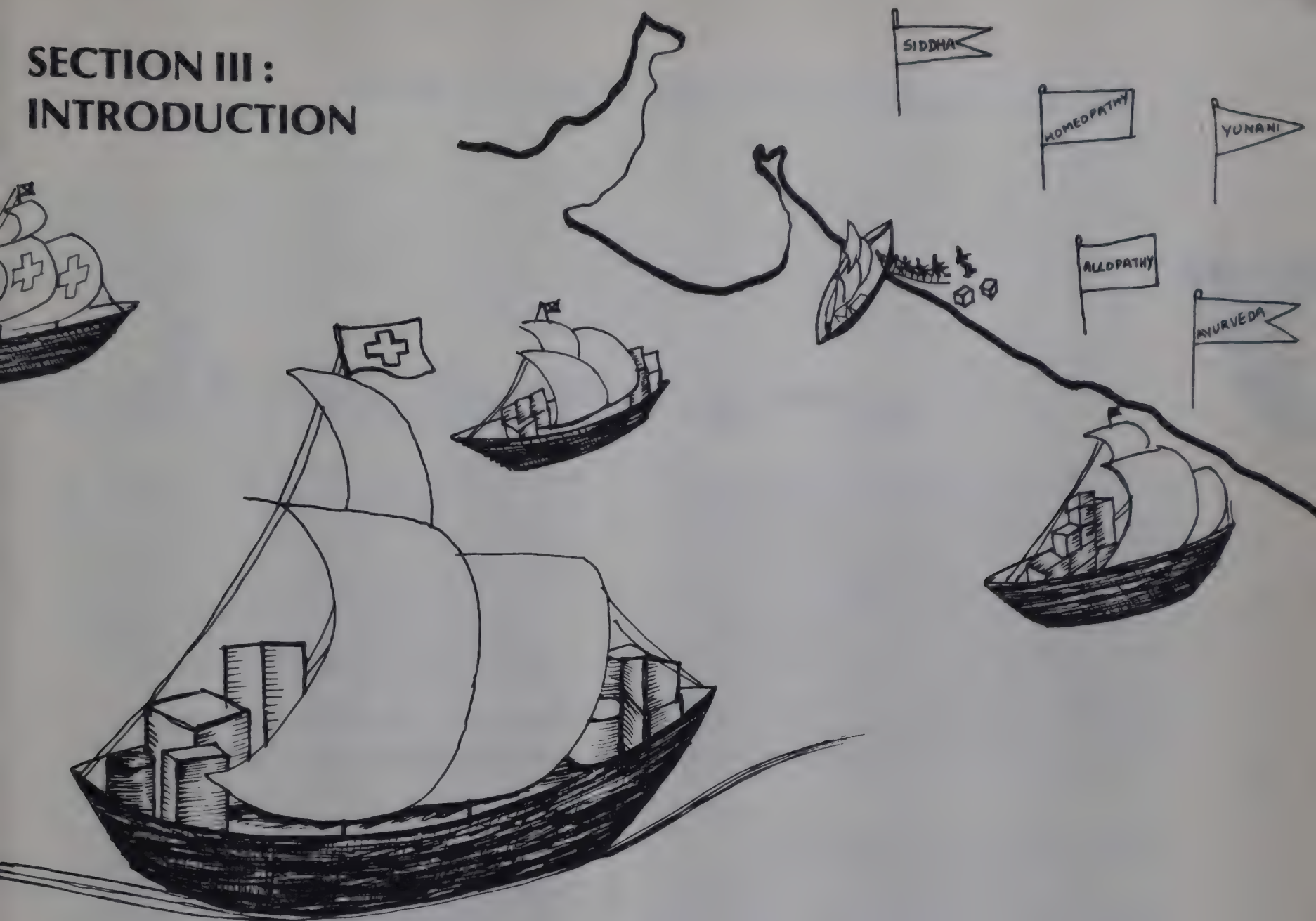
Just as modern medicine has used scientific principles to develop interventions at the immediate level, it also has the potential to develop rational and scientific ways of controlling disease at the social level. This necessarily means that as long as modern medicine serves the economic interests of a few, it will not explore its potential of developing alternative ways of coping with disease.







## SECTION III : INTRODUCTION



This section begins by looking at the development of health services based on modern medicine in Independent India and shows how the interests of powerful groups played a role in determining the priorities of the health system. Each of the later chapters then goes on to look at the activities commonly undertaken by health workers in rural areas and point out the limitations of carrying out these activities the way they have been planned.

Most of these activities have not been planned keeping in mind the social and economic constraints of a majority of the village people. As a result, health workers are able to deal with the health problems of this group only to a limited extent and often end up by-passing the major causes of illhealth in this section of the population.

The chapters in this section also look at the policies of the government in relation to some of these activities and show how health needs are used as a cover for making policies that actually go to serve the interests of the wealthier sections of the population. Health workers need to be aware of this because in carrying out their day to day activities they can end up strengthening the exploitative nature of society.



# 1 : The development of health services in India



Before the British rule ended in India, several committees were set up to guide the newly forming Indian Government to make plans for the country's development. The purpose of the health committee was to study the health problems and suggest the most appropriate health care system. In making its plans, the Indian Government relied mainly on the recommendations made by the **Bhore Committee**. This Committee had the option of choosing a health care structure and a system of medicine from the wide variety of experiences that were available throughout the world.

## Choice of a system of medicine

At that time in India, the allopathic system of medicine (modern medicine), introduced by the British, existed along with homeopathy, ayurveda, unani and siddha. Each of these systems offered a formal training and had its own clientele. Aside from these trained medical practitioners, there were also local healers who practiced mainly in rural areas. Medical practice was therefore not the monopoly of the practitioners of any one system of medicine.

The members of the Bhore Committee were physicians who had received their formal training in modern medicine. This was also the time when it was clear that the Western countries had successfully conquered the infectious diseases that were still prevalent in India. This success had largely been credited to the development of modern medicine. Further, technological solutions proposed by this system had been effective in controlling epidemics in colonized countries. It was therefore logical for the Committee to recommend that India adopt modern medicine as the officially recognized system of medicine.

While the Bhore Committee did not suggest that the other systems of medicine should be abolished, it did state that the term 'doctor' should be reserved only for those trained in modern medicine, and that the Government should pass laws to restrict medical practice in modern medicine to only the formally trained physicians. It also emphasized the superiority of modern medicine over all other systems of healing.

## Choice of a health structure for providing health care services

### Personnel

Among those trained in modern medicine there were two categories of doctors practicing in India — the licensed medical practitioners who had received a 3-years training and the other 'graduates' who had undergone five years of training. In 1941-42 a total of 29,870 licentiates and 17,654 graduates were registered in the country. On the whole there was thus one Registered Medical Practitioner (the common term used for both the licentiates and the graduates) for every 6,300 population.

Though the total number of RMPs was large, they were not distributed uniformly throughout the country. Regional, rural and urban disparities existed even then. For instance, in Bengal the number of RMPs practising in urban centres was three and a half times more than those practising in rural areas. In Sind (which formed a part of British India) the proportion was as high as 49:1.

Thus, approximately, 70-75% of the total RMPs were practising in urban areas even at that time. In comparison to the number of RMPs, the other health personnel formed a minority. The total nursing staff available was only 7,750 (including health visitors), trained





midwives were 5,000 and pharmacists numbered just 75. It was clear that there was shortage of every kind of health personnel, especially the nursing and paramedical staff.

The Bhole Committee recommended that the training of health personnel should form the top priority. However they laid emphasis on training of a basic doctor which they said should take precedence over all other categories of health personnel. The training of a basic doctor was to be such that it would meet international standards. The Committee felt it was best to abolish the licentiate course and recommended that the Government should spend its limited resources on training this one category of doctor.

Since there were already a large number of graduate doctors, the Committee felt that it would be possible to increase the number of doctors to an optimum level. However, with regard to nurses, the Committee realised that even if the Government did implement the recommendations of setting up more schools of nursing it may not be possible to achieve an optimum nurse-population ratio for some years to come. As to the problem of disparities in the distribution of doctors, it was felt that they could be sent where they were needed. The Committee also did not find it necessary to abolish private practice and instead suggested that the private doctors could work part-time in the government health institutions.

### Health care institutions

A survey in 1943 showed that the number of institutions available was far too small to provide a reasonable standard of medical service to the people, especially those living in rural areas. Once again regional as well as rural and urban disparities existed in the avail-

ability of such services. For instance, in the rural areas in Madras Province, one institution served an average population of 42,672, whereas in United Provinces one institution served upto a population of 1,05,626.

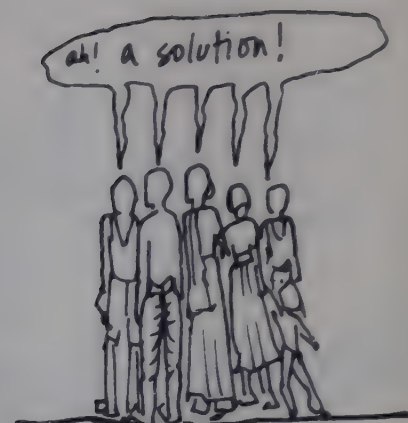
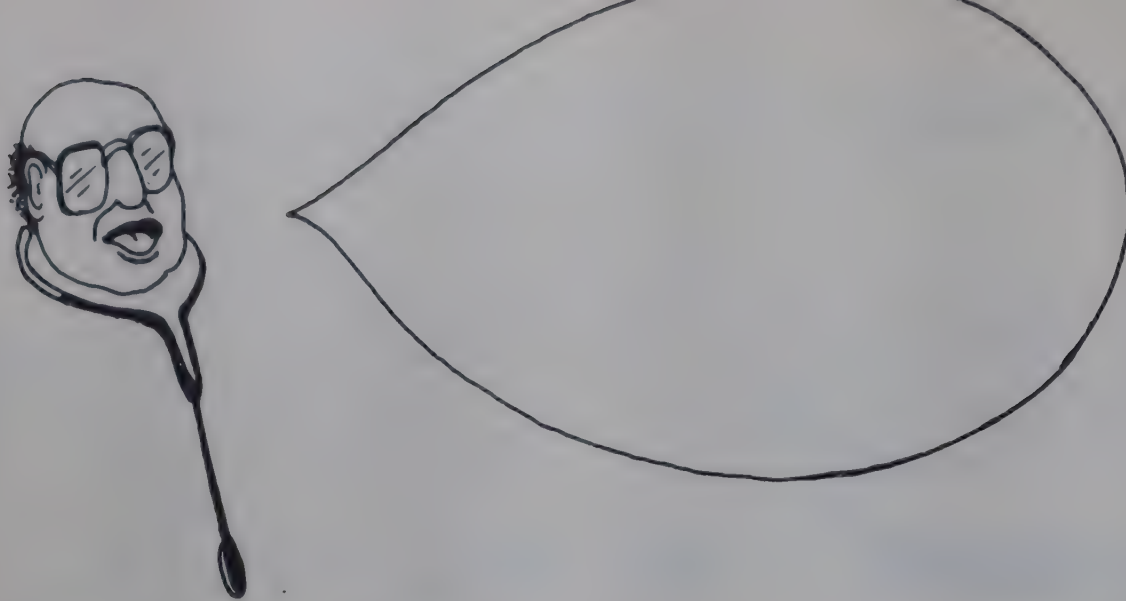
The Bhole Committee encouraged the setting up of a tiered system of health care services which would provide medical help to the population using the resources in the best possible way. Each district was to be divided into 'primary units' with a population of 20,000. To begin with the primary units were to have a primary health centre, and combine the functions of providing medical relief and preventive measures. The patients needing more specialized care were to be referred to a 'secondary unit' which would have hospital facilities for 200 beds along with the necessary staff.

The setting up of these units was to be done in a phased manner. In the first year, each district (with approximately 30,00,000 population) would have five primary units including one 30 bed hospital as well as one secondary unit with a 200 bed hospital. It was envisaged that by the end of ten years, each district would have 25 primary units including 13 hospitals with 30 beds each. The secondary unit would consist of one 200 bed hospital and another 300 bed hospital.

### Focus of health care activities

The Committee stated clearly that the major beneficiaries of all the health activities should be the rural population. This was important because the economy of the country rested on agriculture and illnesses in the agricultural population would affect productivity and hence the national income. Thus expenditure made on rural health services was to be considered a worthwhile investment which would directly lead to the economic prosperity of the nation.





Similarly, among the diseases, it was seen that malaria accounted for the highest number of work days lost due to illness among the rural population. It was also the disease which was responsible for the largest number of deaths in the country. Therefore it was essential that the control of this disease be made the first priority.

The Committee recommended that Preventive and Social Medicine should get as much emphasis as curative services in the training of undergraduate students. To aid in this attempt a separate department was to be set up for Preventive and Social Medicine. The principles and concepts of social medicine were to be taught throughout the undergraduate training period and the student was expected to spend a minimum of 2 months in a rural centre as part of internship.

### Organising health care activities

The doctor was to head the health care team in both the primary and secondary units. Borrowing from the experiences of Russia which had organized local health committees as a form of decision-making and as an advisory board for health programmes, it was suggested that similar local committees be set up in the villages.

The functions of the members of such a group were to help the health unit staff in registering vital events (such as births and deaths), immunizing the vulnerable population and in keeping the village and its surroundings clean. This aspect of organization was given a great deal of emphasis. The members of village health committees could induce people to carry out, "without payment and through their own effort, many measures which might otherwise prove expensive". It was also felt that such a committee could awaken the

health consciousness among the people so that they would begin to feel responsible for their surroundings.

These were some of the salient features of the Bhore Committee's recommendations.

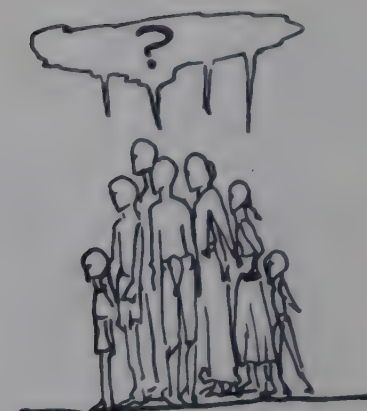
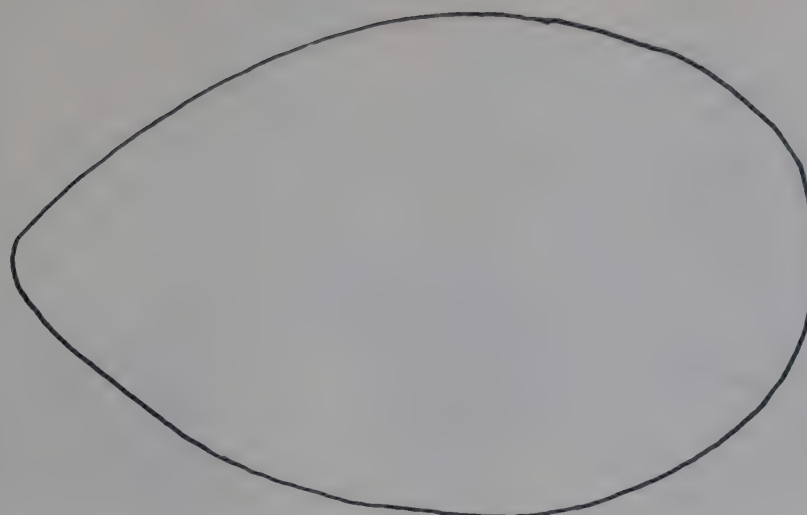
### The Indian Government's response to the Bhore Committee recommendations

Once the British departed, it was left to the Indian Government to implement some or all of the recommendations. With Independence, the newly formed Indian Government took up the challenge of rebuilding the country. It was an enormous task in itself. Due to the exploitative economic policies that had been followed by the British, the ravages of the second world war, partition of India etc., the country was facing a major economic crisis. Resources for development were scarce and expenditure of every bit of money had to be justified.

Since the primary focus was on building up the economy, every activity that would boost economic growth was given preference. Looking at the experiences of the western countries which had achieved prosperity through industrialization, India too decided to adopt industrialization as the means of achieving rapid economic growth. Priority was therefore given to those areas which would directly help in achieving this aim. As a result, the resources allocated for health were low.

Even within this low health budget, the resources were used to benefit that section of the population which was of the utmost importance to the national economy. These were the industrial workers. In this context, major expenditure on health services for the





rural population was seen as having no direct benefit. Industry was important for India's economic development and unlike agriculture, work in industry was non-seasonal. Hence economic growth through industrialization depended upon a continuously working industrial labour force.

One of the first health measures that the newly appointed government carried out was the Employees State Insurance Act of 1948. This Act provided cash and medical benefits to industrial employees in case of sickness, maternity and employment injury. It is significant to note that this measure was implemented for a group of workers who formed a small minority of the total work force in the country. It however took the government five years after Independence to set up the first primary health centre.

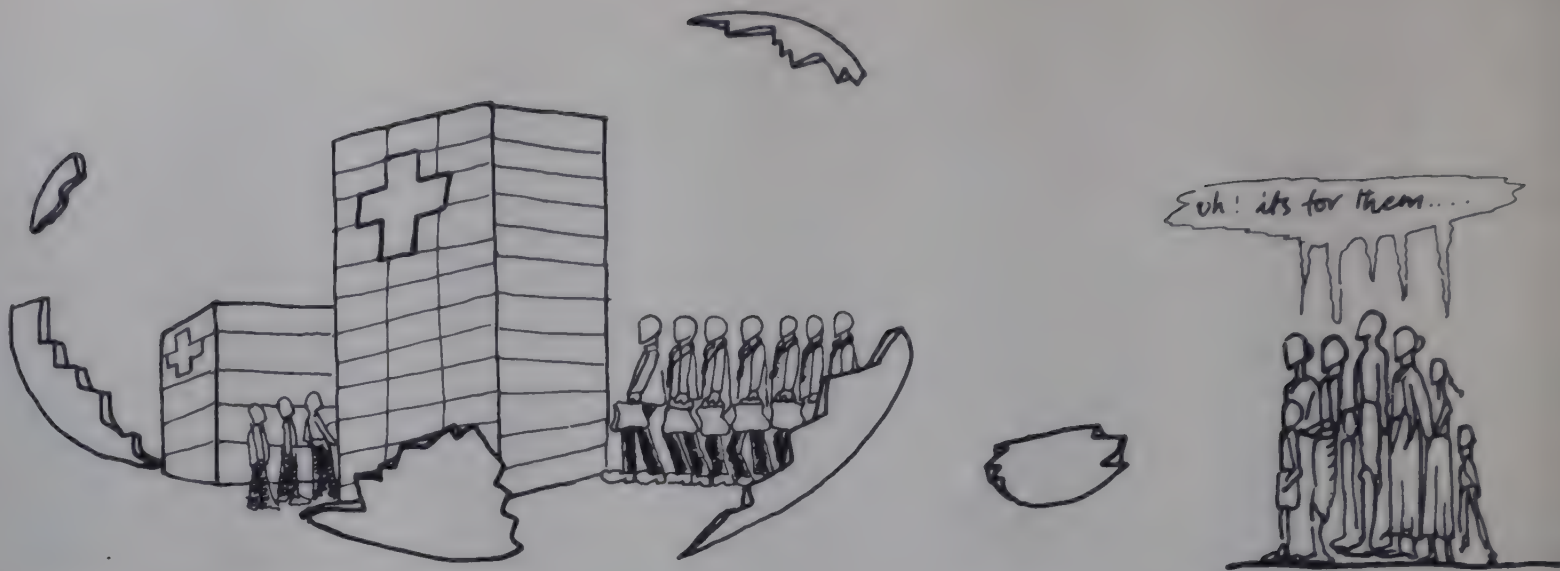
By the late 1950s clear trends were emerging. There had been a significant growth in the number of hospitals and health personnel. Hospitals with more than 50 beds accounted for 1,10,389 beds or 81% of the total beds available. These large hospitals were located in urban areas and one-third of these were attached as teaching hospitals to medical colleges.

In contrast, out of the total number of primary health units that had been planned (5,000) only 2,800 had been set up. Each of these PHCs served a population of 65,000 to 75,000 and was staffed with one doctor, one sanitary inspector, one health visitor and four midwives. A rough calculation based on the national sample survey revealed that in rural areas there was just one doctor trained in modern medicine for 27,000 population.

	1948	1959
No. of doctors (graduates and licentiates)	47,524	83,611*
No. of nurses, ANM's, midwives, LHV's etc.	12,750	68,990
No. of PHC's	Nil	2,800
No. of medical colleges	19	61
Admission capacity in medical colleges	1,200	5,900
No. of nursing schools and colleges	not known	711

\* actually there were many more doctors because adequate data from many states was not available.





In 1959, a committee was set up under the chairmanship of Dr. A.L. Mudaliar, to review the health situation in the country and suggest plans for the future.

### Major recommendations of the Mudaliar Committee

The Committee observed that rural service was not popular among doctors, "and where the positions are not actually vacant, the incumbents with rare exceptions, look upon it as a period of forced labour until they can manage to find their way to a more congenial posting in a city hospital or the health department" Further, they found that the primary health centres were functioning as mere dispensaries. This was seen as the result of a lack of orientation of the medical officers and other staff in public health methods. The most serious drawback of the PHCs was that the responsibility of providing integrated health care services to a population of sixty to seventy thousand was too heavy for a small PHC staff.

Based on these observations the Mudaliar Committee stated that it would not be practical or feasible to provide primary health services to the whole of the rural population. Since resources were still scarce, it was felt that money should be spent on strengthening the district hospitals. These hospitals were to be expanded to include specialist facilities. The taluq hospitals too were to be developed so that they could take care of the routine medical, surgical and gynaecological complaints. Since the required amount of money would not be available to develop all these units (primary health centres, taluq and district hospitals) at the same rate, the Committee felt that the money and personnel should be invested into the district hospitals.

This was seen to be the most practical and economical way of providing medical coverage to the whole district. With regard to primary health centres, the Government was to drop the idea of setting up more of these centres and instead concentrate on upgrading the already existing ones. The Committee felt that this would not be a backward step because "with the increased facilities of road, communications, telephone and telegraphic devices and in view of the proposed establishment of modern hospitals at district headquarters and at the taluqs, it may be preferable to provide medical coverage to the rural population through mobile health vans visiting them from the district and taluq headquarters, instead of multiplying primary health centres on the existing pattern".

Another major problem that this Committee had to deal with was the lack of health personnel especially in rural areas. The Committee discussed reviving the short-term course for training medical practitioners so that the rural areas would at least get some trained personnel. The Committee however felt that "the profession as a whole and all Associations connected with the professional bodies in the field of medicine are strongly opposed to the revival of this course". They were also convinced that the proper development of the country in the field of health must be in terms of the minimum qualifications of the basic doctor.

Further, they stated that as India was no longer isolated and was participating in international programmes it was necessary to train a doctor along the standards set by the WHO. They also felt that the persons trained in the short-term course were more likely to settle down in urban areas thus defeating the very purpose for which they were to be trained. Finally, the Committee felt that the rural areas should not be given a different treatment from urban areas. If proper care was to be





given to rural areas it was to be as good as that given to urban areas.

Coming back to the problem of personnel, the Committee recommended that 20 new medical colleges were to be set up, thereby increasing the admission capacity from 5,900 to 7,900. The number of nursing schools and training facilities for other paramedical staff was also to be increased. The goal was to reach a doctor-population ratio of 1:3000, a nurse-population ratio of 1:5000 and an ANM-population ratio of 1:5000. The ANM was a new category of nursing personnel and this category had been created in 1955.

According to the original plan, these ANM's were not to replace trained nurses but were expected to perform useful functions in health institutions under proper supervision. With regard to these ANM's the Committee was of the opinion that "it will be necessary to have a second grade of training given to certain persons to fulfil certain duties of the nursing profession. It is for this purpose that we recommend the continuance and extension of the training of auxiliary-nurse-midwives".

This was also the time when the Indian drug industry was beginning to emerge as a major force. There were about 2,800 drug manufacturers in the country. Manufacturers employing over 100 workers, or having a capital investment of more than Rs. 10 lakhs numbered 125. The Mudaliar Committee considered only this group as the pharmaceutical industry. The Committee stated that this industry had not only to compete with the foreign pharmaceutical industries but also had to face 'unfair' competition from the smaller units within the country which were producing poor quality products. They therefore recommended that the licences for smaller units should be withdrawn.

Further, they felt that "If the industry is to prosper and if the health of the nation is to be safeguarded there is no case for giving quarter to any manufacturer merely on the ground of his being a small scale manufacturer, if he cannot fulfil the obligations imposed on him by law." The Committee also recommended that the use of generic name drugs should be encouraged in government institutions.

The Committee also made recommendations regarding the problem of overpopulation. This problem was considered urgent because overpopulation was believed to be a major obstacle to the country's economic growth. Recommendations included a graded scale of taxation from the fourth pregnancy onwards; removal of disadvantages regarding income-tax for unmarried persons; withdrawal of maternity benefit in the case of those refusing to accept family limitation and restriction of certain free services rendered by the state to the children of such families; and availability of abortions for socio-economic reasons.

## The setting up of the Shrivastav Committee

The late 1960s and early 1970s were marked by a series of uprisings and people's movements which threatened to destabilize the political situation. The economic policies of the government had increased disparities rather than helping in the reduction of poverty in the country.

Far from improving nutrition, water supply and standard of living for all, the policies had had the opposite effect of making the rich, richer and the poor, poorer. This situation had led to growing discontent among the people which emerged in the form of spontaneous struggles in various parts of the country. The out-





come of these movements was that policy makers were forced to take a new look at their policies and programmes.

With regard to health services, the Government was forced to acknowledge that it was futile to expect doctors to work in the villages. The fifth plan document however stated that the teaching in medical colleges needed a radical change. The undergraduate medical education had to be reoriented towards the need of the country and emphasis had to be placed on community care rather than hospital care. A committee was therefore appointed under the chairmanship of Dr. Shrivastav to look into the question of reorienting medical education and support man-power.

### Recommendations of Shrivastav Committee

The Committee observed that "In spite of the substantial investments made and the impressive results obtained particularly in the production of medical manpower, the health status of the Indian people is still far from satisfactory." For the first time, medical technology was looked at critically and there was talk of deliberately deciding to abandon this model of health care.

Health was seen essentially as an individual's responsibility and the way to achieve good health was to be through health education. The Committee stated that "if the individual cannot be trained to take proper care of his health, no community or state programme of health services can keep him healthy. The issue is, therefore, basically of education".

The first step suggested was that health services for a village should be provided within the village itself. The Committee felt that "At the community level, what is

needed most is not professional expertise so much as nearness to the community, its confidence, emotional rapport with the people, willingness to assist, low cost, and capacity to spare the needed time.

It is, therefore, necessary that some of these services should be provided by the members of the family itself and also by part-time trained para-professional persons who operate on a self-employment basis..... For developing countries whose resources are extremely limited, this method of providing health services is not only desirable but also inescapable".

The Committee suggested that if suitable individuals could be carefully selected and trained according to the "best knowledge and skills made available by the latest developments in medical and health sciences, a large number of people from the community itself would be available for providing the elementary health and medical services needed by the community".

The Committee also felt that it would not be desirable to limit the number of people to be trained at this level, since it would "lead to the creation of a scarcity and monopoly situation with well-known adverse consequences. It should, on the other hand, be open to any individual with the necessary aptitude, background and talent to acquire the necessary skills and to provide the services".

The Committee also removed the fears of doctors, that this level of workers would compete with them and indulge in unethical medical practices, by stating that the functions of this new category of workers was chiefly that of health education. Further, since they were going to be taught the use of just a few remedies for simple day-to-day illnesses, there was no need to fear either misuse or competition from these workers.



Regarding medical education, the Committee recommended that no new medical colleges were to be opened and in fact the admissions to the already existing medical colleges should be reduced. This Committee also discussed re-introducing a short-term course or the licentiate course for training doctors for rural areas. However, the Committee felt that this was unnecessary and irrelevant because unless the socio-economic issues involved in getting doctors to work in rural areas was solved, a mere increase was not going to help.

Further, the Committee was of the view that with the reorganization of health services the need was for better trained doctors rather than a less trained one even for rural areas. This Committee restated that financial considerations should not be allowed to reduce academic standards in medical education.

The Committee also stated that family planning become a part of the development programme. "A massive and urgent programme of family planning, based on the application of existing contraceptive technology, must be developed on a war footing and the birth rate must be brought down to replacement levels in as short a time as possible".

## Conclusion

More than thirty years have passed since the Indian Government took up the task of providing health services to its people. In spite of the fact that every five years or so the Government has had a chance to review progress, change priorities, and reallocate funds while making the five year plans; and in spite of the fact that several committees have been set up to specifically look into the health situation in India, a majority

of the people still have very poor access to health services (see chapters 3 and 4 of section I).

The major problem of our health services today, such as rural-urban disparities, doctors unwilling to work in rural areas, lack of nursing personnel etc. is not something new. Similar observations have been made right from the time of the Bhore Committee. In fact, each new committee has acknowledged these problems. Yet, in making their recommendations, each committee has suggested actions which would only reinforce these problems rather than help to solve them.

For instance, right from the time of the British, health services have been available more easily to some sections of the population than to others. This pattern has remained unchanged, and resources have always been allocated in keeping with the economic priorities of the country.

At the time of Independence since the country's economic development was supposed to be achieved through a process of rapid industrialization, the government automatically placed greater emphasis on providing health services to those sections of the population which helped in this process. Providing health services to rural areas was therefore not a priority of the government.

In this context, the Bhore Committee's recommendations, that health services be focussed on rural areas, may seem radical. However, if one considers that the British rulers kept India's economy largely agricultural and probably wanted it to remain so, the Bhore Committee's recommendation was also in keeping with what the British saw as the economic goals of the country. Thus, even the Bhore Committee's recommendations only reinforced the point that health ser-





vices should be given on a priority basis to those sections of the population whose health is important for the economy.

Similarly, the inadequacy of trained health personnel has been observed right from the time of the Bhore Committee. However, all along much greater emphasis has been given to the training of doctors rather than other categories of health personnel. This is in spite of the fact that throughout doctors have been unwilling to work in rural areas. In fact each committee has in some way or the other protected the interests of doctors even though such actions would not have served the health needs of the majority.

For example, the Bhore Committee helped the doctors to achieve a monopoly over medical practice by recommending that only physicians trained in modern medicine be given the title and status of 'doctor'. This Committee also did not find it necessary to abolish private practice even though it was not hard to see that this would give doctors a free hand in selling their knowledge at any price.

Later committees also observed that doctors were unwilling to work in rural areas but resisted recommend-

ing any changes which would help other health personnel to acquire skills in diagnosing and treating. This preferential treatment given to doctors becomes all the more obvious when one considers that several objections were raised when it came to training another category of doctor (with three years training) whereas no such objection was made with regard to the training of another category of nurses, i.e., the ANM.

Again, no thought was given to the fact that doctors had complete monopoly over medical knowledge and could therefore easily misuse it. But great concern was expressed over the possibility of VHWs misusing the little knowledge that they were to receive. In protecting the interests of doctors, the committees therefore neglected the very problems they had set out to solve.

Thus, it is clear that the government's interests are not necessarily those of the majority of the people. As long as committees are headed and consist of the members of the medical profession, the priorities set by them will essentially continue to protect their own interests first.



## 2 : Health of Children



Children under the age of five years are considered 'biologically vulnerable' and a group that needs special attention from the health workers. Almost one-half of the total deaths in our country occur in this age group. The major load of infectious diseases is also borne by these children. Further, a large proportion of the children under five years of age are undernourished.

According to the National Institute of Nutrition, only 14.8% of the children between 1 to 5 years were adequately nourished in the eight states for which data was collected. Undernutrition has a special significance in children as it could affect their overall growth and, as has been popularised lately, could affect their mental development as well. All these seem reasons enough to justify the emphasis laid on the care of children by health programmes.

However, by emphasising the factor of **age alone** in the care of children, it may seem that all children under the age of five years are equally exposed to the mortality and morbidity risks mentioned above. This does not hold true in the Indian context for, as we will go on to show, it is the factors of economic and social status more than age, that determine which children will fall sick and die before they reach the age of five years.

### Disease, undernutrition and poverty

We have seen in chapter 6 of section I, that inadequate nutrition creates, directly and indirectly, several health problems. It is established that undernutrition lowers the body's immune response, making a person more susceptible to disease.

In children, this sets up a very complex chain reaction. An undernourished child is much more likely to get infectious diseases such as diarrhoea, measles, whoop-

ing cough, tuberculosis and pneumonia. The infection tends to be much more severe and the duration of illness is also likely to be much longer in these children. The complications associated with these diseases are also more likely to appear in an undernourished child. The interaction between disease, undernutrition and poverty can be illustrated clearly by taking the example of measles.

Measles is a common childhood disease which is seldom fatal. The disease usually starts with fever and cough. Small red coloured rash appears on the skin around the fourth day. By about the tenth day, the child begins to get better. The rash starts fading and the child is on the way to recovery.

However, in an undernourished child, measles is much more severe and takes on a very different form. The rash becomes confluent, (joins together to form big patches) the colour of the rash becomes a darker red, and at times may even become purple. After a few days the skin becomes scaly and starts to peel off. This peeling of the skin takes place to such an extent that the child is likely to get pyoderma (another skin infection). The child may also develop bronchitis and pneumonia, sometimes there may be diarrhoea and the child may pass blood along with the stool.

The diarrhoea may keep occurring again and again even after the child has recovered from measles. There are chances of developing severe vitamin A deficiency and at times this may lead to blindness. Because of the associated loss of appetite and inability to suck milk or swallow food (due to the sores in the mouth), the child may develop signs of severe undernutrition (weight loss, swelling of feet etc). Studies have also shown that an undernourished child with measles has 400 times





greater chances of dying than a well nourished child with measles.

The severity of the disease in an undernourished child has been explained in the following way:

The immunity in measles is largely cellular and the rash is probably evidence that sufficient lymphoid cells have been produced to neutralize the virus by attacking and destroying the virus containing cells wherever they may be.

In the child with malnutrition, the reproduction of these lymphoid cells is delayed due to the lack of protein and other material required for cell multiplication. This delay allows the virus to increase in a logarithmic phase.

As a result when sufficient lymphocytes are produced the destruction of cells is much greater; evidence of this is the endothelial damage leading to more extravasation of blood, or the rash and desquamation, or the bloody diarrhoea. (David Morley)

This severe form of measles is no longer seen in the developed countries such as America and England where the economic status of people is higher. Historical evidence also suggests that children who come from a lower socio-economic group have a higher mortality from measles as compared to the children from the upper economic group.

A study done in Glasgow (England) in 1908, showed that the mortality of children from families which lived in a house with more than four rooms was one-fourth of that among children from families living in a one room house. The other group of children in whom

mortality was higher (i.e., more than 10%) were from the orphanage. It is also important to note that in 1908 there was no effective medical treatment for complications of measles, or vaccines to prevent it from occurring. Hence, the lower mortality in the upper economic group could not have been due to their better access to medical facilities. The nutritional factor related to poverty was probably the determining factor.

Diarrhoea, another common health problem in children, is also a good example to illustrate the interaction between infection, undernutrition and poverty. The extent of the disease in children can be seen from a study done in Punjab in 1970. It was found that in an average village with 110 children (average population in the village being around 750), 18 suffered from diarrhoea in any one day. Other studies have also shown that diarrhoea is a major cause of death among children in this age group.

#### Annual number of deaths due to diarrhoea per 1000 population by age group

Study conducted by	Age		
	below 1 year	1 year	2-4 years
Gordan <i>et al</i>	34.4	21.0	—
Dutta Banik <i>et al</i>	26.5	12.8	7.0
Ghai & Jaiswal	45.4	—	—

Source: **Bulletin of the WHO**, Vol 60, No.4

In the past it was thought that diarrhoea in children spread through the contamination of water. But additional information has shown that diarrhoea in children does not show the characteristic features of a





water-borne disease. A typical water-borne disease occurs suddenly and affects a large number of people at the same time. In children, however, diarrhoea is related to the weaning period of their life, i.e., from the time the child is given solid foods to eat upto three months after breast feeding is discontinued. This is also the time during which undernutrition is most common among children.

It has been observed that attacks of diarrhoea during the weaning period is twice as frequent in undernourished children as compared to well nourished ones. It was also noticed that diarrhoea did not spread directly from one child to another as happens in a water-borne disease. As a factor in causing diarrhoea, water was important only to the extent that adequate running water facilities are needed to clean hands and wash vessels used for cooking. Thus, observation shows that diarrhoea in children is not a communicable disease; undernutrition is the determining factor.

Even though the relationship between undernutrition and diarrhoea has been well established, there are very few studies to show the link between undernutrition, poverty and diarrhoea. A study done by Dr. Vijay Kumar et al in Punjab shows that the incidence of diarrhoea is twice as frequent in children in rural areas as compared to those from an upper socio-economic group living in a city.

The higher frequency of diarrhoea in undernourished children has been explained by the changes seen in the inner lining of the small gut in such children. These changes allow the multiplication of bacteria in that part of the intestine which normally contains very few bacteria. The toxins that are produced decrease the absorption of sodium leading to diarrhoea.

It has also been found that during diarrhoea, a child can lose upto 600 calories per day. This adds to the already undernourished state of the child. Further, children from poor families are unable to make up for the loss of nutrition even after they recover from diarrhoea. Hence, though diarrhoea is often self-limiting (in 80% of children, diarrhoea lasts no more than 2 days) the child may end up by being more undernourished and therefore more susceptible to further infections.

So far we have seen that infectious diseases, which are the major causes of mortality and morbidity in children, affect the undernourished child much more than the well nourished child. Further, undernutrition by itself is also a major cause of morbidity and mortality in children as can be seen from a study done in Palghar, Maharashtra. It was found that in 1965 the commonest causes of deaths in the age group of 1 to 6 years were as follows :

Malnutrition and severe anaemia	31.9%
Bronchopneumonia	21.3%
Acute gastro-enteritis	20.2%
Infectious diseases	8.5%
Other causes	18.1%

From the above discussion, the close relationship between disease, undernutrition and poverty is thus clear.

## Mortality in childhood

Out of the total deaths in our country, 47% of deaths are among children below 4 years of age. Even in this age group, the majority of deaths occur within the first year of life. A substantial percentage of the deaths among children take place because of the following reasons.





## 1. Low birth weight

The ideal birth weight is that which causes the least obstetrical problems and is accompanied by the least incidence of neonatal mortality. The acceptable weight at birth is 2.5 kgs. In India 22% of children born in the poor families weigh less than 2.5 kgs. Among the rich families only 10% of children weigh less than 2.5 kgs. at birth.

Low birth weight contributes to one-third of the Infant Mortality Rate (IMR). The lower the birth weight, the higher the mortality. But it is not clear how many of these deaths are due to the poor survival of a low birth weight infant and how many are due to an increased susceptibility to poor environment and infection.

One of the most important determinants of birth weight is the mother's nutritional status. In a study conducted in India, pregnant mothers were given food supplements providing extra calories and proteins. These mothers gave birth to infants with higher birth weights. Another study done in Gautemala (South America) clearly brought out the fact that when undernourished women were given extra calories they gave birth to healthier infants.

## 2. Nutritional status of children

A mother's breast milk is sufficient for the baby upto the age of six months. Even an undernourished mother is able to produce upto 400-600 ml. of breast milk per day which is adequate to meet the baby's needs up to the age of six months. After this age, the child requires foods other than breast milk to supplement its nutritional needs. The food is to be given in smaller quantities at frequent intervals and in an acceptable form (mashed, with little or no spices). To feed a child in this manner it is necessary to have

someone who could devote a large part of the day to such activities.

However, in a poor family, where both the parents have to labour outside to bring in an income, the task of caring for the small child falls on one of the older children. In fact, as often happens, the work conditions imposed on the mother are such that she is not permitted to even breastfeed the baby regularly upto the age of six months.

Once the child is older and can fend for itself, the low food availability in a poor family prevents it from receiving adequate nutrition. As we have already seen, the low nutritional status in children from poor families makes them susceptible to infections such as diarrhoea, measles and tuberculosis, which form the major part of the illnesses leading to death.

## 3. Deaths related to the sex of children

There is a significant difference in the IMR among female children as compared to male children. This disparity is all the more pronounced in the rural child population as can be seen from the table below.

### Disparity between the IMR of male and female children

Year	Rural		Urban		Combined	
	male	female	male	female	male	female
1976	133	146	78	82	124	135
1977	136	146	80	82	126	135
1978	132	143	74	75	123	131

Source : Health Statistics of India, G.O.I, 1983





As we have seen in chapter 7 of section I, in Indian society, male children are much more valued than the female children. This has led to the general neglect of not only female children but also of the whole female population. This low status of the female population is reflected in the allocation of food within the family, the resultant higher incidence of undernutrition of female children, their neglect during illness and the higher deaths among them.

#### 4. Childhood deaths in relation to the educational status of women

It is generally argued that the literacy rate of the population especially of women has a great impact in reducing the IMR. For instance, one of the main factors that distinguishes Kerala and Sri Lanka, from the other low-income areas and countries is the literacy level, particularly that of women. The female literacy rate in Kerala was 64.48 in 1981 at a time when the Indian national average was 24.73. The infant mortality rate in Kerala was 40 while the national average was 114 in 1980. In Sri Lanka more than 44% of the adult women have completed primary school and the IMR is 42. In Pakistan and Bangladesh in contrast, only about 10% of the girls finished primary school and the IMR in these countries was 142 and 139 respectively.

The reason why fewer babies of better educated women die is not well understood. The women's level of schooling could indicate the general improvement in the overall living condition, and probably an improvement in the status of these women. From the observation that the impact of female literacy was strongest on the post natal mortality, it has been suggested that "education enables a mother to meet the challenges of a hazardous environment more successfully". (Newell).

#### Infant Mortality by educational level of women in India (1978)

Educational level of women	IMR	
	Rural	Urban
Illiterate	132	81
Literate but below primary	105	59
Primary and above	64	49
Literates	90	53

Source: Health Statistics of India, G.O.I. 1983

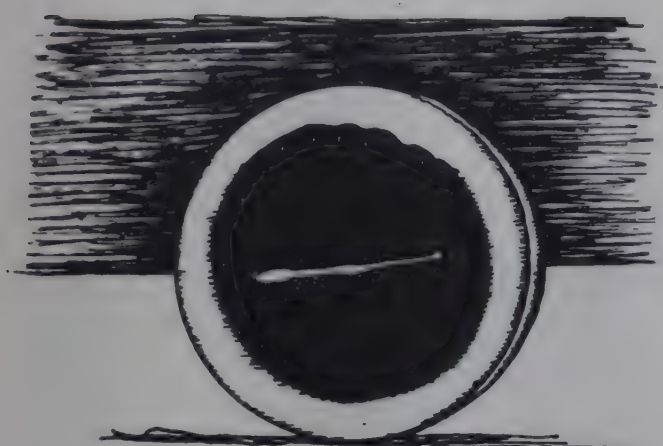
The above table shows a relationship between educational status of the mother and IMR. However, what is surprising is that the IMR shows an increase in the literates, as compared to those who are educated above the primary level. One possible reason which needs to be further investigated, could be that the literate mothers may be feeding their babies with tinned baby food.

#### 5. Bottle feeding

Lately, due to pressure from the manufacturers of tinned milk food and the encouragement of doctors who promote such feeding, there has been an increase in the bottle feeding of infants. The manufacturers of tinned milk food play upon the fears and aspirations of women to be good mothers. Aggressive advertising has led to mothers switching over to milk food in the hope of making their children as fat and chubby as the child shown in advertisements. This switch-over to tinned food is taking place among the poor urban women as well as those living in rural areas.

The women who belong to the poor households however, are not in a position to feed the child in the extremely hygienic way that bottle feeding requires. Fur-





ther, due to their poverty, they also tend to dilute the milk powder to a far greater extent to make it last for more days. All this has led to undernutrition and recurrent diarrhoea in children who are bottlefed. As a result there is a high mortality rate among children who are bottlefed. (For a more detailed analysis of advertisements in changing the behaviour of people, see chapter 6 of this section)

## 6. Access to medical care at birth and death

Neonatal tetanus and birth injuries are major causes of death in the first four weeks after birth. In rural areas 39.2% of neonatal deaths are due to tetanus. These problems could be prevented if the pregnant woman had access to trained medical personnel at the time of her delivery.

Similarly, 20 to 30% of child deaths are due to six common immunizable diseases. These deaths can once again be prevented if children had access to health services. As we have seen in an earlier chapter, people in rural areas have very poor access to medical facilities. This fact gets further confirmed by a study which shows that as many as 75% of infants in rural areas did not receive the services of trained medical personnel at birth and 58% did not receive such services at the time of death. (See tables below)

### Type of medical attention received at birth. (1978)

	Rural	Urban
Medical institutions	15.6%	46.9%
Trained medical practitioners	8.1%	15.2%
Untrained medical practitioners	58.8%	25.0%
Others	17.5%	12.9%

### Type of medical attention received at death. (1978)

Children below one year	Rural	Urban
Medical institutions	29.59%	53.6%
Trained medical practitioners	12.37%	11.6%
Untrained medical practitioners	20.89%	7.4%
Others	37.15%	27.4%

Source : UNICEF, *Child Atlas of India*, 1981.

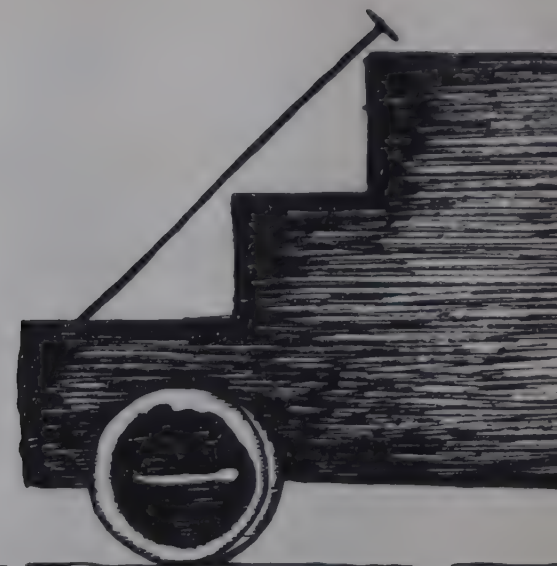
## 7. Access to water

It has been recognized that inadequate amounts of water can influence mortality rates in children. A survey done by the World Bank found that the highest diarrhoeal infection rates were in households which are furthest away from their water sources. Those families with taps inside the house tend to have the lowest infection rates, those with water close to the house have the next lowest, and those with the water source farthest away have the highest infection rates.

A study from Chile shows the low incidence of diarrhoea in areas which have water supply in the houses. The incidence of diarrhoea in such areas was 55 per 1000 as compared to areas with no such water supply, which had an incidence of 212.7 per 1000.

The magnitude of this problem becomes clear when one notes that in 1980, one-third of India's 5,70,000 villages had been declared 'problem' areas from the point of view of the availability of drinking water. 'Problem' villages refers to those villages (a) which do not have an assured source of drinking water within a reasonable distance, i.e., about 1.6 kms. (b) where the sources of water supply are endemic to water-borne diseases such as cholera, guinea worm etc. and





(c) where the available water suffers from excess of salinity, iron, flourides or other toxic elements dangerous to health.

It is also well known that even in places where drinking water is available low caste people are often not allowed by the high castes to use this water. The low caste harijans have to travel long distances to get water or take polluted water from sources which the high castes do not use.

In recent years it has been argued that emphasis should be on the provision of **adequate quantities** of water rather than on the quality of water, because the former is more important in lowering the incidence of water related infections than the latter.

Thus, if we consider all the factors which contribute to mortality and morbidity in children, these can be classified as follows :

- \* **economic status of the family**
- \* **social status of the family**
- \* **inadequate access to medical and other facilities.**

While it is true that age is an important factor in that most of the mortality takes place in this age group (0 to 5 years) it is equally true that social and economic factors often create conditions which **determine** mortality rates much more than any other factor. This becomes very clear when we consider the mortality rates in our country.

Over the last 30 years, the overall infant mortality rate in our country has declined very little. In 1951 it was 134 and in 1981 it was 122. However, even this slight decline is really because of the decline that has taken place in urban areas. A comparison of the IMR in urban and rural areas shows that between 1970 and

#### Infant mortality rate in rural and urban areas

Year	Infant Mortality Rate	
	Rural	Urban
1970	136	90
1973	143	89
1976	139	80
1978	137	74

Source: **Health Statistics of India**, G.O.I., 1983

1978 while the IMR declined from 90 to 70 in urban areas, the IMR in rural areas remained the same. If age were the only factor then these differences should not have been there. The decline in IMR in urban areas was also most probably due to the decline in IMR among the children from the upper socio-economic group.

Since there has been no improvement in the socio-economic status of the majority living in rural areas, the IMR has also shown no appreciable change. In fact, the IMR can be considered a better indicator of how well a country or region is meeting the needs of its population than per capita income. This is why a country like Cuba or a state like Kerala, even with a relatively low per capita income have lower IMRs than a country like Kuwait which has a much higher per capita income but also a much higher IMR.





## Does undernutrition affect mental development?

It has been widely popularized that undernutrition in early life leads to mental retardation. Studies done in several poor countries showed that children who were hospitalized during infancy for malnutrition had low IQ scores when they reached school age (IQ is a conventional measure of intelligence).

But this connection between undernutrition and mental retardation was disproved by several studies done in the early 1970s which showed that while undernutrition in early life could directly retard brain growth and alter brain structure, this did not in itself affect mental development.

According to these studies it was only when undernourished children were also deprived of love, security and stimulation to exercise their creativity, they would show signs of abnormal behaviour. These studies also showed that children growing up in an environment of poverty and deprivation could develop normally and scored well in IQ tests if they were later exposed to an enriched environment.

The above studies and their conclusions are important to the extent that they have disproved the widely held belief that undernutrition leads to mental retardation.

However, by associating undernutrition and abnormal behaviour with a lack of a stimulating environment these studies could still be used to prove that children from poor families are abnormal. This is because it is believed that children from poor families are deprived of a stimulating environment.

Here, the understanding of what is meant by a 'stimulating environment' should be questioned. Definitions of terms such as 'intelligence' and 'stimulating environment' usually reflect the cultural bias of the society where they evolve. Tests that are developed to measure intelligence too make use of the life experience of the persons who evolve these tests. Since most researchers come from economic and cultural backgrounds which are totally different from those of the poor people, their studies tend to perceive and measure poor people from their own standards. This perhaps could also explain the bias that the environment of poor people is non-stimulating.

What is important to note is that, although this subject is still controversial, many health workers continue to popularize the notion that 'undernutrition leads to mental retardation' as an established fact.



### 3 : The health of women

The health system in India classifies illhealth among women under 'Maternal Health Services'. Married women between the ages of 15 to 44, are considered biologically vulnerable because of their added risks of pregnancy, which the rest of the population is not exposed to. This added risk is also considered to be greater in India as the maternal mortality rate in Indian women is much higher than that in developed countries.

For instance, the maternal mortality rate in Indian women is 5 to 8 for every 1000 live births whereas in developed countries like Canada, the maternal mortality rate is only 0.1. This emphasis on women's health during their reproductive period also comes from the observation that, in India, women live shorter lives than men whereas in developed countries the situation is reversed, i.e., women live longer than men. Similarly the sex-ratio of a population, i.e., the number of women per 1000 males is low in India as compared to other countries. Usually there are more women than men in a population whereas in India there are less women than men.

All this is taken to be because of the high maternal mortality in India. Therefore health workers are expected to contact women when they are pregnant, delivering or lactating. However, by focussing on just this one aspect of women's lives, little attention is given to the fact that illhealth in Indian women is not primarily because of maternal mortality but because of other factors.

The real reasons for illhealth among women can be understood only if one looks at the female population right from birth rather than concentrating on the problems of illhealth among women in the age group of 15 to 44 years. As we will go on to show, it is the

fact of sex and not merely reproduction which determines the health status of women.

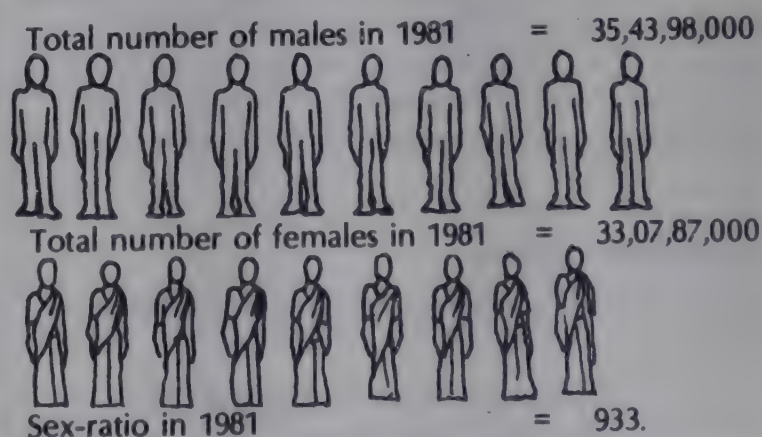
#### Health status of the female population in India

##### Sex-ratio

The sex-ratio is defined as the number of women for every 1000 men in a population. Due to some inherent biological reasons, which are not clearly understood, the sex-ratio is more than 1000.

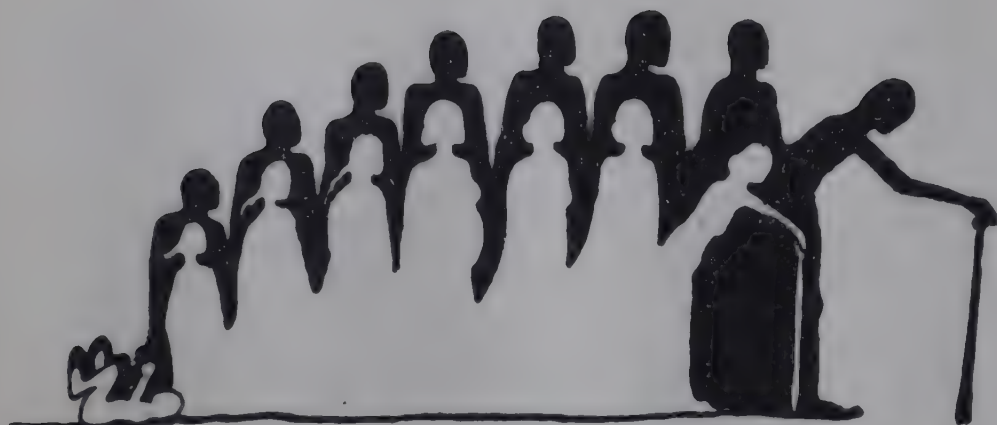
In other words, in any society, under normal circumstances, there are more women than men at any given point of time. (Normal circumstances, would mean that both men and women are exposed to mortality risks equally and in addition, the women continue to face the risks associated with reproduction).

The fact that there are more women than men has been ascribed to the biological vulnerability of the male, which enables a larger number of females to survive under the same conditions. However, in India, the sex-ratio is low.



The above figures indicate that there are factors which prevent women from surviving.





## Life expectancy

Life expectancy is defined as the average number of years likely to be lived by a person, who is exposed to the mortality risks of the whole population at any given time. As we saw above, theoretically speaking, women should have better chances of survival than men. Therefore, their life expectancy should be longer than that of men. However, in India the reverse is true as can be seen from the following table.

**Life expectancy (in years) for males and females, 1971.**

Age	Males	Females
At birth	46.40	44.70
10 years	48.80	47.70
20 years	41.10	39.90
30 years	33.50	32.00
40 years	25.90	25.40
50 years	19.20	19.70
60 years	13.60	13.80

Source : Health Statistics of India, G.O.I., 1983

The above table shows that the life expectancy of females is lower right from the time of birth until the age of 40 years. Maternal mortality cannot obviously be the cause of this since reproductive risks do not explain the lower life expectancy of females below the age of 15 years.

## Mortality pattern

If we look at the death rates in our country, we find that :

- more deaths occur among females than males between the age of 0 to 9 years. This obviously cannot be due to maternal mortality.

- death rates among females are somewhat higher than males in the age group of 15 to 29 years. These higher death rates could be due to maternal mortality.
- death rates among females are the same or lower in the age group 30 to 44 years. Since this is also part of the reproductive period, the risks of maternal mortality do not explain this lower death rate among women.

Thus, the risks of reproduction do not explain the pattern of death rates among the female population in our country.

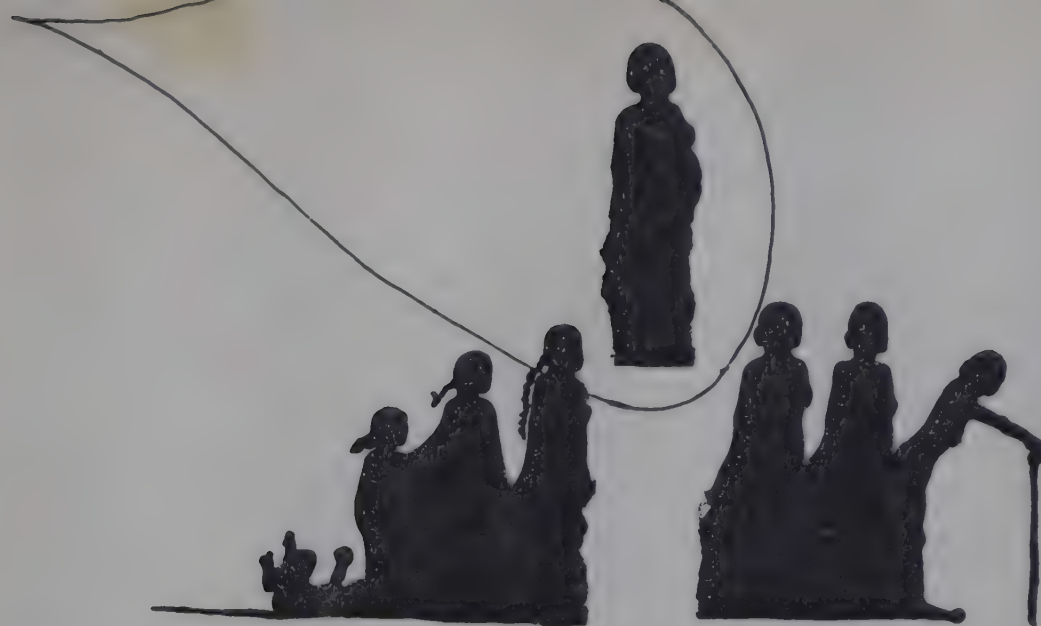
**Death rates according to age and sex, 1978.**

Age-group	Males	Females
0 — 4	44.7	52.1
5 — 9	3.7	4.7
10 — 14	2.0	2.0
15 — 19	2.1	3.0
20 — 24	2.7	4.1
25 — 29	3.4	4.1
30 — 34	3.8	3.9
35 — 39	5.2	4.7
40 — 44	7.4	6.7

Source : Health Statistics of India, G.O.I., 1983

As we said earlier, one of the reasons why so much emphasis is given to maternal services is that the maternal mortality rate is higher in Indian women as compared to the maternal mortality rate of women in developed countries. However, the higher deaths among Indian females do not apply only to the reproductive age group but applies to the other age groups also, as can be seen from the table.





### Death rates according to age and sex Comparison between the USA and India

Age group	USA (1976)		INDIA (1978)	
	Male	Female	Male	Female
Under 1 year	17.62	14.19		
1 — 4 years	0.78	0.61	44.7	52.1
5 — 9 years	0.41	0.28	3.7	4.7
10 — 14 years	0.44	0.25	2.0	2.0
15 — 19 years	1.39	0.53	2.1	3.0

Source : Nelson, *Textbook of Pediatrics* 1979, and *Health Statistics of India*, G.O.I., 1983.

As can be seen from the above table there is no justification on laying greater stress on maternal mortality on the basis of comparative statistics from other countries. If priorities have to be set on the basis of international comparisons, these comparisons should be made on death rates in females in all age groups and not on deaths during the reproductive period alone.

### Causes of death

Traditionally, maternal mortality is considered the major cause of death in females in India. However, deaths due to pregnancy and puerperal causes (maternal mortality) account for only 11% of the total deaths which occur among females. As can be seen from the table, even during the reproductive age groups, infectious and parasitic diseases and accidents are much more important causes of death as compared to deaths due to pregnancy and childbirth.

### Causes of death in the reproductive age group (15-44) in females (1979)

Deaths due to	15-24 years	25-44 years
Infective & parasitic disease	23.11%	27.70%
Accidents	23.87%	14.03%
Pregnancy & childbirth	13.15%	9.38%
Ill-defined	12.03%	10.54%
Circulatory	—	11.82%

Source : Compiled from *Health Statistics of India*, G.O.I., 1983.

Further, the maximum number of deaths in the female population occur before the age of 15 years and not during the reproductive period as can be seen from the following table.

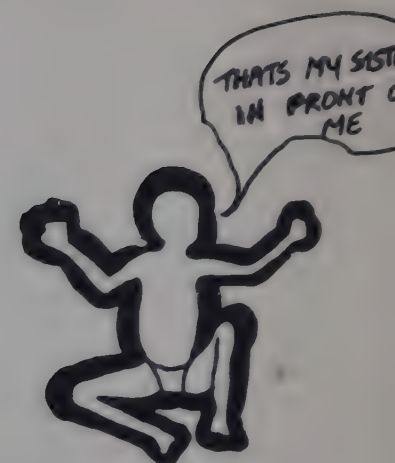
### Percentage distribution of deaths in different age groups (females)

Age-group	Deaths	Percentage of deaths
0 — 14	28583	36.91
15 — 44	23407	30.22
45 +	25453	32.87
Total	77443	100

Source : Compiled from *Health Statistics of India*, G.O.I., 1983

To summarize, from all that we have seen so far, maternal mortality cannot be considered the primary cause for the low sex-ratio, the low life expectancy, and the high death rates among the female population. 145





## Some important reasons for the low health status of females in India

### Nutritional status

From what we have seen, the major cause of illhealth among females is infectious and parasitic diseases. The maximum number of deaths also occur during early childhood. In the last chapter we have seen the relationship between undernutrition, infection and mortality. While undernutrition is the underlying cause of death among all children, it is more significant in female children.

A study done in the Ludhiana district of Punjab, shows clearly that the percentage of female children who were undernourished was higher than the percentage of male children who were undernourished, within the same economic group.

Another study was conducted in Punjab, among children upto the age of 6 months, from both the upper and lower socio-economic group. These children were being fed solely on breast milk. The health team involved in the study tried to promote breast feeding through various media. At the end of 6 months it was

found that 90% of the mothers in the lower economic group were able to achieve a good state of nutrition in their male infants whereas only 72.7% of the mothers in the same economic group were able to achieve a good state of nutrition in their female infants.

Similar sex differences in the nutritional state of breast fed infants was seen in the upper economic groups as well. The study concluded that the "percentage of good performers was higher in males irrespective of socio-economic status". In other words, breastfeeding mothers who received the same health education succeeded in improving the nutritional status of their male children as compared to their female children.

Thus, both the above studies show that, the low nutritional status of female children cannot be explained by the factor of poverty alone. In both the studies, the nutritional status of female children was lower irrespective of the economic group they came from.

These disparities in the nutritional status between males and females continue even after childhood. For instance, a study conducted in a rural area in Bangladesh showed that the actual food allocation for males and females was different in all the age groups studied.

### Comparison between the nutritional status of male and female children

	Normal nutrition		70-80% of the expected weight for age		Less than 70% of the expected weight for age	
	M	F	M	F	M	F
Privileged	86%	70%	10%	11%	4%	13%
Under-privileged	43%	26%	43%	24%	14%	50%



**Daily intake of calories by age and sex in Matlab, Bangladesh, June-August, 1978.**

Age-group	Male	Female
1 — 4	809	694
5 — 14	1590	1430
15 — 44	2700	2099
45 +	2630	1634

*This study has been taken since we were unable to find a similar study done in India and because the status of women in Bangladesh is not very different from that of Indian women.*

Even after making adjustments for body weight (the body weight of males is generally higher, and hence their energy requirement is also higher) the study concluded that "overall, the actual nutrient intake patterns and crude adjustments for sex-specific requirements demonstrate that female children irrespective of the adjustment, are markedly disadvantaged in terms of food requirements relative to intake".

A similar pattern can be seen in the nutritional status of women in India. A study conducted by ASTRA, in a rural area of Karnataka in 1981, for the first time attempted to calculate the time spent by men, women and children, on various domestic and productive work. On the basis of this, they calculated the energy cost of doing each of these tasks. The study concluded with the observation that "if we disaggregate human energy, the contribution of men, women and children is 31%, 53% and 16% respectively (as percentages of total human hours per household per day)". In other words, considering the amount of work done by men, women and children in each household, the maximum amount of work was done by women, i.e., 53%. In terms of caloric expenditure, women spent 2505

calories per day in doing their fifty three per cent part of the total work, while men spent 2473 calories per day doing 31% of it.

Considering the average calorie intake in rural India for men and women which is 1700 and 1400 respectively, it is clear that while both men and women get less calories than they need, the gap is greater for women. It is also important to note that the calorie expenditure calculated for women in this study does not include the increased requirement during pregnancy and lactation during which time she continues with her daily activities. Thus, even as adults, women are much more undernourished than men.

All these indicate that a female as a child or adult, gets proportionately less to eat. Further, this fact is not related to poverty alone as it is present in families both from the upper as well as lower economic groups.

### Utilization of medical services

Another reason for the low health status of females in India is that they utilize health services much less than males. Though not many studies have been done on the sex-wise utilization of health services, two studies done in West Bengal and Uttar Pradesh bring out these differences clearly.

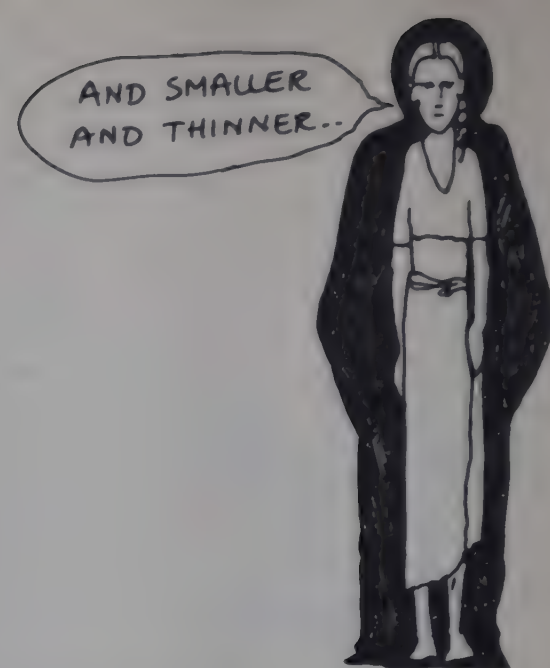
#### Utilization of medical facilities by sex in West Bengal

Year	Out-door patients attending Hospitals/Dispensaries		
	Men	Women	Total
1951	33,91,064	20,45,481	54,36,545
1961	57,41,381	43,31,218	1,00,72,599
1971	84,02,742	63,38,910	1,47,41,652

Source : **Towards Equality**, report of the Committee on the Status of Women in India, G.O.I., 1974







### Patient treatment by sex in Uttar Pradesh

Year	In-patients		Out-patients	
	Males	Females	Males	Females
1962	5,24,589	3,70,580	1,48,90,103	88,42,015
1963	4,77,097	3,96,785	1,61,20,016	89,93,631
1964	5,17,789	3,92,881	1,49,84,539	94,99,673
1965	5,17,919	3,96,220	1,51,86,055	96,70,673

Source : **Towards Equality**, report of the Committee on the Status of Women in India, .G.O.I., 1974

A study done in Bombay showed that for every three men admitted in hospital only one woman was admitted. The records of most primary health centres and subcentres would also show a smaller number of women patients utilizing such services.

A study conducted in Bangladesh (mentioned earlier) showed that "despite nearly comparable incidence of field diarrhoeas (diarrhoea cases in village), male children under 5 years of age were brought to the Matlab treatment facility by their guardians far more frequently than female children. Diarrhoea treatment rates averaged 135.6 per 1000 among male children in comparison to 81.9 among female children — the former being 66 per cent higher than the latter. A similar sex differential of treatment facility utilization was observed among 5-14 year old children. The utilization pattern became reversed during the adult ages, 15-44 years". *The authors of this study have not given any explanation for the higher utilization of health services among adult women. In India we do not know if such a reversal takes place because, to our knowledge, a study on age and sex-wise utilization has not been done.*

148 These differences in the utilization of health services are not because females as a group are healthier than

males. In fact as we have just seen, death rates are higher among females right up to the age of 34 years. The above data therefore seems to indicate that ill-health in females is not taken seriously, and, as a result, females are dying in their homes without a chance to use medical services.

### Social status

Perhaps the single most important reason for the low health status of women in our society is that they are not valued as much as males. Traditionally as we have seen earlier, the agricultural society considered the eldest male member as the head of a household. Major decisions within the family were made by this male member. This power was also passed down to the eldest son in the following generation. Customs and religious beliefs gave the necessary social sanctions to such practices. The role of a woman in such societies has been mainly that of wife and mother. Her true destiny was to get married and her important contribution to the family was to bear male children. To be a good mother, values such as self-sacrifice and self-denial were encouraged.

This view of womanhood is still encouraged in female children right from an early age. A woman's identity still rests with her husband as can be seen from the way Indian society reacts to widowhood. Apart from being considered an inauspicious presence at all religious and ceremonial occasions, a widow's social movements are severely restricted and she is virtually reduced to the status of a non-entity. On the contrary, a woman whose death occurs before her husband's is considered lucky and 'blessed' for having died a 'sumangali'.

In addition, culturally menstruation and childbirth, both a natural part of a woman's life have been asso-





ciated with impurity. Several restrictions are imposed on menstruating women such as untouchability, prevention from participating in domestic activities (e.g., cooking) and religious rituals (e.g., lighting the lamp). Even today, a female child is discriminated against from the time she is born. Further, any expenditure on the son (such as education and medical care) is seen as a productive investment since he is the one who will continue to stay with and look after the parents. The female child on the other hand is not considered worth 'investing' in because she is believed to be the 'property' of her future husband even before she is married. But unlike real property which has to be paid for when bought, the woman's family has the misfortune of having to pay an exorbitant amount to the man who will marry her. This is the custom of dowry which is a major expenditure for the girl's family even in poor rural households. While the custom of dowry is believed to be a compensation for the fact that a family's property does not pass on to the daughter, basically, it is once again a differentiation being made between the sons and daughters.

All this results in the woman's parents viewing her as a burden, and the woman's husband viewing her as property. This view of woman as property finds expression in such common practices as raping a man's mother, wife or daughter to take revenge against him; and landlords feeling free to rape women from lower castes and believing it is their **right** to do so.

From all that we have seen so far, it is clear that the ill-health among women is primarily because of the low value and status given to the female sex as a whole in our country. It is this same factor which is responsible for the low nutritional status of females throughout their lives as well as the fact that illhealth among females is not taken seriously.

## The response of the medical profession to the problems of illhealth among the female population

The medical profession gives importance to the health problems of women only during the reproductive period. A closer look at the reasons for maternal services shows that, even here, the concern is not primarily with the woman's health, but with the health of the child. This is because the health of the woman is seen as a necessary factor for the proper growth and development of the child. This is why maternal services are linked with children's services and the whole programme is called Maternal and Child Health (MCH).

The reasons of the medical profession for viewing the woman and child as one unit are as follows :

- \* During the ante-natal period the foetus obtains all its nourishment from the mother. If the mother is undernourished her chances of giving birth to a low-weight baby are high. The chances of still-birth and abortion are also high.
- \* Certain diseases and conditions of the mother during pregnancy (e.g., syphilis, german measles and drug intake) are likely to have their effects on the foetus.
- \* After its birth the physical, mental and social development of the child are also dependent on the care and attention given by the mother.

A book on rural health services brought out by the government of India starts its chapter on MCH with the following quote from John Burns :

"First concentrate on the mother. What the mother is, the children are. Let us glorify, dig-



nify, purify motherhood by every means in our power. Let us see to the nursing mother in every way. Nourish the mother and you feed the child."

While it is true that the child's health is dependent upon the mother, this is no justification for concentrating on a woman's health only during motherhood.

In taking such a view the medical profession seems to be totally unconcerned with what happens to the woman before, between or after her pregnancies. For instance, the incidence of iron deficiency anaemia is high in the female population as a whole. The effect of this condition can vary from such 'vague' symptoms such as weakness, fatigue, breathlessness, tingling and numbness of the limbs and loss of appetite to more serious conditions such as cardiac failure in the non-pregnant woman. Yet anaemia assumes an importance in maternal services only because of its relationship to still-birth and deaths during pregnancy. It therefore seems as if the medical profession is only interested in supervising women so that they perform their reproductive functions properly.

The medical profession's preoccupation with the reproductive function of women has also led to the inclusion of the family planning programme as a part of Maternal and Child Health services. Women, specially from the poorer families, are believed to reproduce in an irresponsible manner, i.e., produce too many children at too frequent intervals. This 'unregulated' fertility is also associated with increased incidence of low birth weight babies, severe anaemia, abortion, antepartum haemorrhage and high maternal and perinatal mortality. Though the improvement of women's health is given as the reason for including family planning as a

part of MCH, in reality, it is an effort of the government to reduce birth rates at all costs. (see chapter 7 of this section).

This programme has resulted in adding further morbidity to the already unhealthy female population in India. This morbidity is not just related to the health problems associated with using contraceptive technology. The target-oriented family planning campaign has created a fear of forcible sterilization in the minds of women, especially those from the lower economic group. Because of this, women fear to use the government medical facilities even when these are accessible.

Thus the medical profession takes a very narrow view of the health problems of women. In doing so, the medical profession also reflects the attitude that is adopted by the rest of society. Just as society views women mainly as producers of children and ignores all other contributions made by them, so also the medical profession focuses only on the woman's reproductive function and ignores all other aspects of her life.

Recently, the medical profession has added insult to injury by using the social situation in our country for their own profit by promoting amniocentesis as a modern form of female infanticide. Amniocentesis is a medical technology that was developed to detect genetic deformities of the foetus. It involves testing the amniotic fluid around the sixteenth week of pregnancy. Since certain genetic disorders are transmitted through the sex-chromosome, the testing of amniotic fluid includes finding out if the foetus is male or female. These tests are to be done in cases of women from families with a history of genetic disorders, or on women who are pregnant after the age of 40 years. However, in our country, private practitioners have tried to profit from the social conditions in which the





birth of a female child is seen as a disaster. They offer amniocentesis as a test for determining the sex of the baby in the uterus. If the baby is female then the parents are allowed to abort it.

The test has become so popular that between 1978 and 1983 around 78,000 female foetuses were aborted after sex determination tests. The policy makers too welcome this misuse of the test because according to them any action that leads to the reduction of population growth should be encouraged. Since one of the factors which determines the family size is the need to have at least one surviving male child this test is being promoted as a method of population control.

## Conclusion

The health problems of women in our country are primarily related to their social status in society. This factor of social status is important irrespective of the economic group to which the women belong. In the case of women from the poorer families, the risks due to being female are added to the already present risks of poverty. The medical profession gives little importance to both the economic as well as the social factors which determine the health status of women. By focusing merely on their reproductive function, the medical profession neglects the far more important causes of morbidity and mortality among the female population.



## 4 : Health of Adults

The end of childhood and the beginning of adulthood is defined varyingly according to different standards. Physically, a child is considered an adult with he/she stops growing, i.e., around the age of 18 years. According to the Child Act of 1960, the term child means a boy who has not attained the age of 16 years and a girl who has not attained the age of 18 years. Legally a person is considered an adult only after the age of 18 years, after which the consent of parents and guardians is no longer needed to make major decisions.

All these definitions view childhood as one-third of the life span of a person. But in reality, for children belonging to poorer families, the gap between childhood and adulthood is very small. This is because persons from the age of 6 years onwards start contributing in a major way to the survival of the family. By performing important activities such as looking after younger children, fetching firewood, water etc. the older members in the family are released to perform activities which have an actual economic return (income).

Apart from such activities, younger persons also participate in recognized economic activities as in the match-making and carpet weaving industries, to add to the family's income. Hence, in poorer families from both rural and urban areas, persons from the age of 6 years onwards become part of the workforce. If adulthood were to be defined not in terms of age but in terms of contribution to the survival of the family, then in these households persons from the age of 6 years onwards would have to be considered as adults.

The health care system deals with the health problems of this age group (6 years onwards) by organising school health services, maternal services, employees insurance scheme, and programmes for the control of

specific diseases (such as TB, malaria, leprosy control programmes).

However, school health services do not cater to the school-age population that does not go to school. Maternal services, as we have seen, focus only on a small percentage of the health problems of married women in the age group of 15-44 years. Employees insurance scheme caters to those people in the work force who are employed in factories. This scheme does not cover those engaged in agriculture or those who are not working in factories.

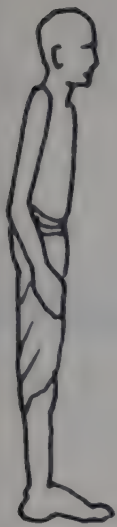
All the above facilities are thus not available to a majority of the working population belonging to poor families in both rural and urban areas. As we will go on to show, this population has several serious health problems which are not covered even by the specific disease control programmes.

### **What are the health problems of persons from the age group of 6 years onwards in poor rural households?**

#### **Undernutrition**

This is perhaps the single most important underlying cause of illhealth in this population. We have already seen the relationship between undernutrition and infectious diseases. Apart from such obvious relationships, undernutrition affects health in other ways also. In persons between the age group of 5 to 18 years, physical growth is not yet completed. In these persons undernutrition can lead to fatigue, lassitude, restlessness and irritability. Loss of appetite, easily induced digestive disturbances, starvation type of diarrhoea (loose stools containing mucus), are other symptoms.





Such persons often look tired and listless, their faces are pale and the eyes are dull.

In continued chronic undernutrition there may be delay in bone growth, teeth formation and in the onset of puberty. In order to reduce energy expenditure the body adapts by decreasing the surface area through stunting of growth. In the female population, such stunting has an added significance because it affects the size and shape of the pelvis, leading to difficult childbirth.

In persons over the age of 18 years also similar problems can be seen. In a study done (in the U.S.A.), twelve healthy persons who were consuming 3100 calories daily, were put on a diet containing only 1600-1800 calories (the average calorie intake of poor persons in India). They were observed for five weeks.

“During this period they lost 10% of their body weight. The food intake was then increased to 1970 calories daily; on this diet the body weight remained approximately stationary over a period of several months. The striking economy in food intake was achieved, however, at the cost of a considerable deterioration in the general physical and mental state.

The persons felt weak and tired easily; they were unable to work hard or for a long time; sexual drive was decreased. Their listless depressed state led to a saving on the 500 calories usually needed for ‘small activities’ and exercise. The chronic state of undernutrition decreased the basal metabolic rate. As far as they could they reduced their energy output further by doing less work. The energy intake provided no reserve for the additional re-

quirements of fever or illness. The final picture was similar to that found among the poor in many backward countries.”

(Samson Wright)

In 1950, another study was conducted in the U.S.A. to study the effects of more severe and prolonged semi-starvation in humans.

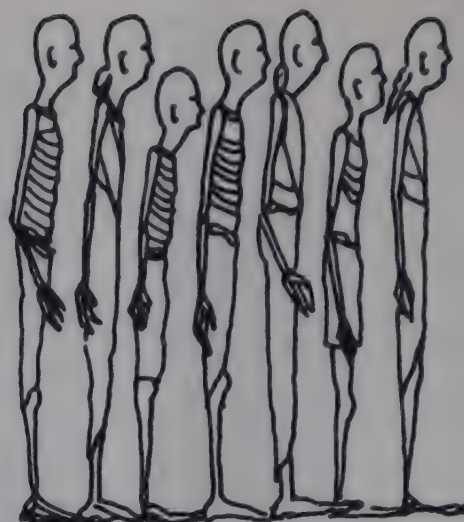
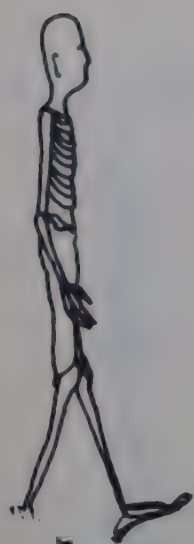
Thirty two healthy adults who were consuming an average of 3490 calories were put on a diet of 1570 calories and were observed for 6 months.

They lost 25% of their body weight. The wasting affected the face and the body alike; the skin became rough; thin and pigmented. The hair grew more slowly and fell in large amounts. Swelling was common after the 3rd month and was present in the ankles, knees and face. Cuts and wounds bled less freely and healed more slowly.

Tolerance to heat was increased but that to cold was diminished. They liked their food and drink to be served unusually hot. They constantly complained of their cold hands and feet; even in the hot summer they wore extra clothes and covered themselves with many blankets at night. They complained of giddiness or momentary blackout on getting up from the sitting or lying position.

There was no impairment of eye sight but many of them complained at times of inability to focus, eye aches and ‘spots’ before the eyes. Muscle cramps and muscle soreness were common; legs and hands often went to ‘sleep’. Voluntary movements were noticeably slower, they felt weak and tired easily. They moved cautiously. Coordination was





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disturbed; the men sometimes tripped over the kerb and bumped into objects which they intended to avoid.

There was a reduction in self-initiated spontaneous activities; as starvation progressed, fewer and fewer things stimulated the men to overt action. They said that their increasing weakness, loss of ambition, narrowing of interests, depression, irritability and loss of libido (decreased sexual response), made them feel they were growing prematurely old.

*Both the above studies on artificially induced semi-starvation, have been taken from **Samson Wright's Applied Physiology**, eleventh edition. It is not clear whether these studies were done on volunteers or prisoners.*

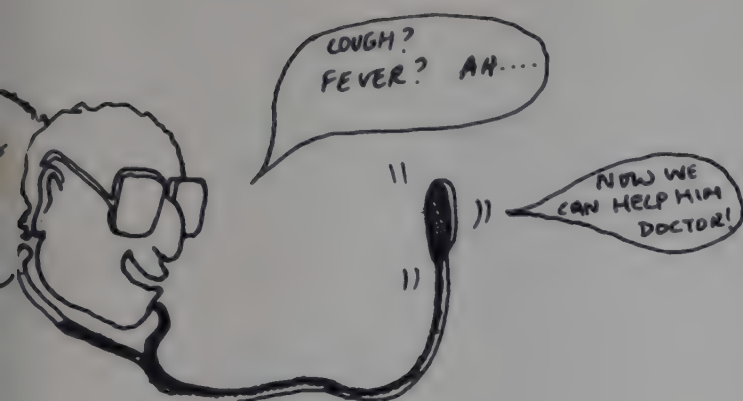
The symptoms of semi-starvation described above form the major portion of morbidity seen in a rural health care centre. Generally these symptoms of semi-starvation are dismissed as being subjective (problems in a person's own mind) and therefore not worth taking notice of. It is also a fact that the present health care system has no 'medicines' to offer for the problems of hunger.

Therefore these problems assume an importance only when they manifest themselves in the form of infectious diseases, which are responsible for a majority of the deaths in this age group (see table). This is specially true in the case of tuberculosis which is a disease directly related to economic status.

#### All India age-wise causes of deaths in females (percentage)

Cause of death	Age in years			
	5-14	15-24	25-44	45-64
1. Infectious and parasitic diseases	34.97	23.11	27.70	17.17
2. Accidents, poisoning and violence	12.07	23.87	14.03	—
3. Diseases of the nervous system	13.27	—	—	—
4. Diseases of the circulatory system	—	—	11.82	29.67
5. Cancer	—	—	—	11.11
6. Ill-defined	—	12.03	10.54	12.70





### All India age-wise causes of deaths in males (percentage)

Cause of death	Age in years			
	5-14	15-24	25-44	45-64
1. Infectious and parasitic diseases	34.30	28.16	30.55	21.76
2. Accidents, poisoning and violence	13.91	25.18	16.94	—
3. Diseases of the nervous system	11.20	—	—	—
4. Diseases of the circulatory system	—	7.76	13.17	29.44
5. Diseases of the digestive system	—	—	10.40	8.49
6. Ill-defined	12.12	14.16	12.65	11.40

Source : Compiled from **Health Statistics of India**, G.O.I., 1983

Another serious implication of undernutrition is revealed in a study done by the National Institute of Nutrition, Hyderabad which shows that body weight is related to work output and wages earned. According to this study chronic undernutrition leading to low body weight in adulthood could result in reduced work capacity, reduced work output and consequently lesser wage earnings, even when the work to be done was of light or moderate nature.

This becomes significant when we consider that the very same population which is undernourished, is also engaged in heavy manual labour. Since the wages earned by this population is dependent on the amount of work that they are able to do, it automatically means that the earnings of this population get reduced. This in turn leads to poor nutrition and further illhealth.

Undernutrition is therefore the single most important health problem of adults in rural areas.

### Occupational health

Since the population above the age of six years spends a considerable amount of time participating in economic activity it is also important to know about health problems related to occupation. Since agriculture is the main source of livelihood in rural areas, health problems related to occupation would mean health problems which arise out of the way in which agricultural activities are undertaken.

Health problems such as tetanus, hook worm infestation, snake bites, scorpion bites etc. affect those engaged in agriculture much more than other people and can therefore be considered occupational diseases of agricultural workers. However, with the use of modern farming methods such as fertilizers, pesticides, machines etc. a whole new set of health problems have also become associated with agricultural work. These are mostly in the nature of accidents and poisoning which also cause a high percentage of deaths in this group. (see Tables)





The Child Act of 1960 prohibits the employment of persons below the age of 14 years. According to this Act, persons between the age of 15 to 18 years can be employed with shorter hours of work if they produce a certificate from a civil surgeon regarding their fitness for work.

Hence, industries in the organized sector do not employ younger persons. Because of the necessity to find work these younger persons are forced to work in industries in the unorganized sector. The employers exploit the powerlessness of these young persons and their families, by making them work for long hours and paying them very low wages.

The employers thus make huge profits at the cost of the health of these young persons. Further, as these industries are in the unorganized sector they are not covered by the Factory Act or the Employees State Insurance scheme. Young persons working in these factories therefore do not get any of the privileges available for those working in the organized sector.

It has been estimated that in 1983 about 17.4 million persons below the age of 14 years were employed in the work force and 90% of them were from rural areas. An UNICEF report of 1984 states that "In rural areas, it is estimated that children work on an average 211 days a year while men and women work 277 and 156 days respectively. Invariably, wages are exploitatively low, generally less than 50 per cent of the already depressed daily wage for the adult male.

The child labour participation rate for the male child varies from one per cent in Kerala to 11.7 per cent in

Andhra Pradesh. Among girls, the participation rate in the rural areas varies from 0.3 per cent in Punjab to 10.5 per cent in Andhra Pradesh according to a 1978 survey.

A large number of children in India are employed in the unorganized sector partly due to the legal restrictions in employing them in the organized sector. So they are found commonly in small plantations, way-side restaurants and small hotels, cotton ginning and weaving, carpet weaving, match-making, stone-breaking, brick kiln, handicrafts and automobile and metal workshops. Child labour has increased sharply both in the traditional handicraft as well as in the newer labour intensive industries.

The working conditions for child labour are usually harsh. For example, it has been found that about 45,000 children between the ages of 3½ years and 15 years work for almost 12 hours a day in the match and fireworks industries in cramped environments with hazardous chemicals and inadequate ventilation. In the bidi (leaf cigarette) industry, children, eight to twelve years of age, and sometimes even those between five and eight years, put in long hours and often contract chronic bronchitis and tuberculosis.

Surveys in various centres of cottage and handicraft industries have shown high incidence of diseases such as bronchitis, anaemia, tuberculosis, asthma and eye diseases. These are due, among other hazards, to the system of piece-rate compensation making the children work at a feverish pace to increase their earnings." (Piece-rate is a system of payment by which a person is paid according to the number of items, e.g., matches he/she is able to finish).



## **Health problems due to the use of chemicals in agriculture**

As a part of modern farming methods a number of chemicals are used (pesticides, insecticides etc.) to protect crops from being damaged by pests, weeds and insects. As we saw in chapter 8C of section I, these new farming methods are mainly being used by the big farmers and landlords. However, since these people do not themselves participate in agricultural activity, it is usually the agricultural labourers employed by them who handle all these chemicals.

Each of these chemicals is extremely poisonous and is meant to be handled with extreme care. In developed countries, these chemicals are used only by specially trained people who use protective aids such as masks, gloves etc. to protect themselves from coming into direct contact with these chemicals. In India, usually none of these precautionary measures are adopted. Spraying is done by untrained people and safety devices are not provided to these workers. As a result these people are in constant danger of developing pesticide poisoning.

According to WHO estimates, India accounts for one-third of the pesticide poisoning cases reported in the underdeveloped countries. A study done by the Indian Institute of Management, Ahmedabad, estimated that nearly 77% of the agricultural workers spray pesticides on crops for 11 days in a season. A majority of these workers were exposed to the pesticides for 5 to 7 days. Such long duration of exposure can lead to several health problems.

In acute cases of poisoning, the person usually dies, but chronic exposure can lead to blindness, cancer, diseases of the liver and the nervous system. A recent study has shown that 73% of workers in cotton growing

areas had developed symptoms of cardio-vascular and intestinal problems. Besides affecting the health of the worker, these chemicals also affect the worker's family as it can lead to the birth of congenitally malformed babies, stunting of growth in children etc.

To make matters worse, many of the pesticides that are being used in India have been banned in other countries as they are considered too dangerous. (The foreign firms that manufacture these pesticides, either export them to India or have themselves set up firms for manufacture within India). For instance, BHC an insecticide categorized as 'highly hazardous' is known to produce cancer. It is being used over 11.5 million hectares or 8% of India's net sown area.

Methyl parathion, another pesticide classified as highly hazardous, is being used over 12 million hectares. It is extremely difficult to handle since it can be absorbed through the skin. The other pesticides and weedicides which have been banned in the western countries but used widely in India are Hepatachlor, DBCP, 4-D herbicide, and Paraquat.

Much more research is required to assess the full extent of poisoning and the incidence of health problems associated with the use of pesticides among agricultural labourers.

## **Health problems due to use of agricultural machines**

Modern farming also includes the use of machines like tractors, threshers, harvestors etc. The machine which creates the most health problems (due to injuries) is the threshing machine. Once again, these machines are operated mostly by agricultural labourers hired by landlords and big farmers to work on their land. It has



been estimated that 10,000 farm workers were injured while threshing in the last 12 years.

Though these figures may seem low, they become significant when we consider that in 1975, 500 workers had been injured whereas in 1980, 5,000 workers were injured. Thus, the rate of increase of such injuries has risen by 10 times in just 5 years. The nature of injury is also such that the worker becomes incapacitated for life. This is because these injuries have to be treated surgically which involves mostly the amputation of the arm and in some cases, amputation of the legs.

According to a study done by Haryana Agricultural University, 50% of these injuries were due to the use of sub-standard threshing machines. Another study done by Punjab University found that fatigue (tiredness) was responsible for 40% of all farm accidents.

A group of doctors from Punjab, who analyzed the causes of thresher accidents, found that all the thresher accidents studied were caused by poor quality threshing machines which did not have protective guards. According to these doctors, "Landowners have a tendency to invest least amount of money on thresher machines because it is to be used only for a few days in a year and that too mostly by hired labour."

They also found that the agricultural workers were forced to work overtime during the harvest season. To enable these workers to put in maximum amount of work, landlords were providing them with intoxicants such as opium and alcohol. The thresher injuries were thus caused by the combined effect of sub-standard machines, exhaustion due to overwork and intoxication due to opium and alcohol. (Many of the workers also became addicted to these intoxicants by the end of the harvest season).

### Another health problem special to agricultural labourers.

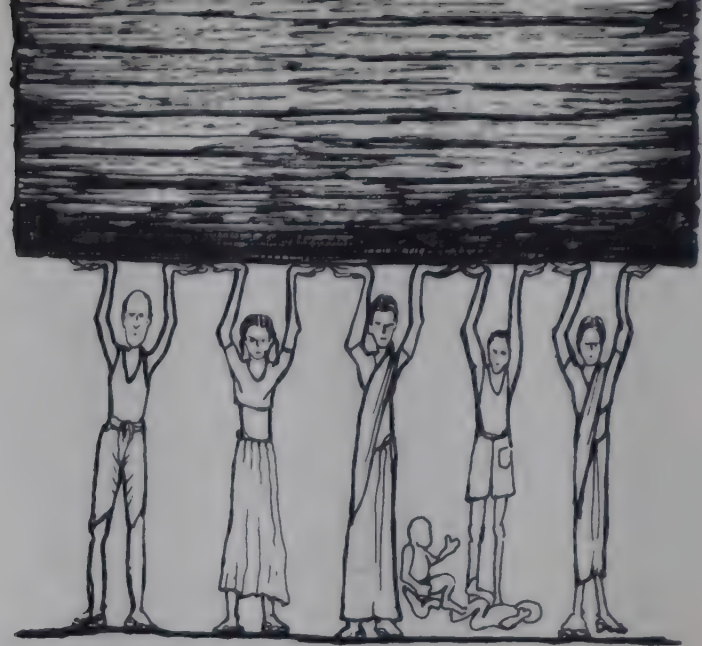
In some parts of the country, another major health problem of agricultural labourers is that of Neuro-lathyrism. This is a disease which affects the nervous system and causes paralysis of the lower limbs. In a large number of patients the disease strikes a person suddenly while in others it may develop gradually. The affected person has sudden and severe pain in the calf muscles due to spasmodic contractions of these muscles. This is followed by stiffness, the knees come closer together and the person may find difficulty in walking.

In the later stages the person may require sticks to help in walking and finally, the stiffness of limbs and the bending of the knees is so great that the person can move only by crawling or by dragging himself on the ground. This disease affects males ten times more often than females and the age group affected most is between 11 and 35 years of age.

An investigation to identify the cause of this disease was done in 1959-60 by the Indian Council of Medical Research. It was found that eating the seeds of a leguminous plant **Lathyrus sativus** caused the disease. This plant is extensively cultivated in Madhya Pradesh, Bihar, and to some extent in Uttar Pradesh, Bengal and Andhra Pradesh and Maharashtra. It is known locally as **Kesari**, Teora Matra, Lakh, Lankalu etc. The seeds are grey in colour and sometimes mottled.

The dehusked seeds or the dal resemble chana (Bengal gram) or arhar (red gram). The flour of these seeds is also used for adulterating besan (bengal gram flour). Lathyrus is cultivated because it can grow under extremely adverse agricultural and climatic conditions. In





the Rewa district of Madhya Pradesh nearly 19,000 acres of land were said to be under lathyrus cultivation.

All studies done so far have shown that neuro-lathyrism occurred mainly among landless agricultural labourers. Small landowners also suffered from it to an extent but the big landowners who cultivated this crop on their land rarely suffered from the disease. The reason for this disease being most common in agricultural labourers is that they are forced to eat this pulse because they receive it as daily wages. In this area it is a practice for landowners to give wages in grain rather than in cash.

Since Kesari dal is easier and cheaper to cultivate and is also heavier than the other grains, landlords have made it a practice to cultivate Kesari dal for the purpose of distributing it as wages. Though other food grains are also given along with Kesari dal, the amount of Kesari dal added is so high that people eating this combination have a high chance of developing lathyrism. The labourers who consume this mixture are aware that Kesari dal causes lathyrism but are forced to eat it because they cannot afford to eat anything else.

The Indian Council of Medical Research has found that the poisonous effect of this dal could be eliminated if it is steeped (soaking the dal in hot water for 2 hours, washing it and then drying it in the sun) or if it is parboiled (soaking it in water for 12 hours and then steaming it for half an hour). But both these practices are impossible tasks for labourers who rely on daily wages for their daily meal.

That Neuro-lathyrism is a problem of great magnitude can be seen from the fact that in just two districts of Madhya Pradesh (Rewa and Satna) there were 25,000 and 32,000 persons affected by Neuro-lathyrism.

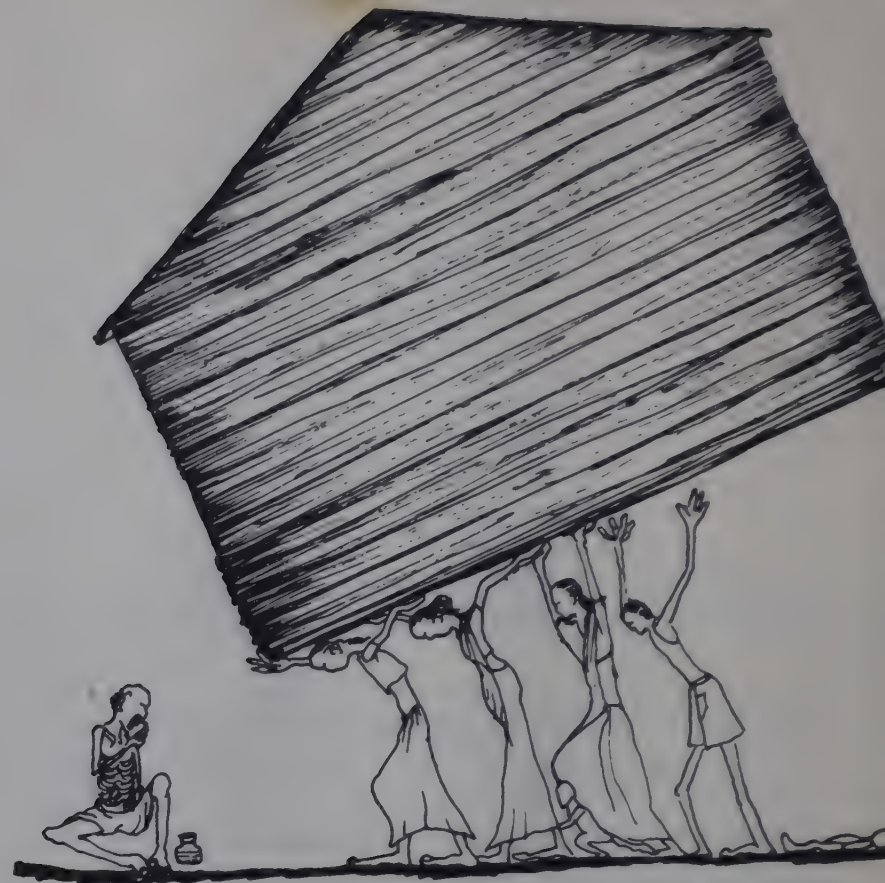
So far we have looked at some health problems among adults engaged in agricultural work. As mentioned earlier, these health problems are not viewed seriously by the medical profession. Even if studies have been done on the impact of these health problems, these studies are not freely available. It therefore appears as if the morbidity and mortality due to agricultural poisoning and accidents are low.

However it is more than likely that many more people suffer from these health problems. These health problems also need to be given more importance because morbidity and mortality due to them are likely to increase at a faster and faster rate in the years to come. Further, there are strong possibilities that the effects of agricultural poisoning may be felt in future generations also (see example of DES on page 119).

However, if health problems among agricultural workers are given little importance, then the health problems of women in relation to housework are given absolutely no importance. For instance, it is a commonly known fact that women spend long hours cooking at home in front of smoky chulhas. This constant presence of smoke is also known to create eye problems, and respiratory problems ranging from bronchitis to cancer.

According to Madhu Sarin's book **Nada Chulha**, studies done at the East West centre in Hawaii have shown that the amount of cancer causing particles breathed in by women by smoky fires in closed kitchens can be equal to smoking twenty packets of cigarettes per day. She also mentions that in the plains, where dung cakes are the main fuel, the fire smoke causes more irritation and is more dangerous. All the same very little effort has been made to study the.





incidence of these health problems among women in India. This could be due to the fact that housework is not considered 'productive' work in the present society.

## Conclusion

From the health system's point of view the health problems discussed in this chapter may seem of little significance. This is because the health care system focuses mainly on those diseases and those age groups which account for major mortality. This is reflected in the special programmes organized for under fives and pregnant/lactating women and the vertical programmes for the control of diseases such as T.B. These programmes are no doubt important in themselves. However by separating them and viewing them in isolation, the health care system loses sight of the inter-relationships involved.

In a poor family, irrespective of which member is affected, the health status of all other members is endangered to an extent. For instance, if the adult earning member is incapacitated due to an injury or illness or is unable to earn sufficiently because of undernutrition, the health of the whole family deteriorates to a lesser or greater extent. This is because, with the dete-

rioration of the already low economic status, the availability of food within the family also decreases.

This decrease would perhaps affect the 'biologically vulnerable' members in the family the most (the underfive children, pregnant/lactating women) and increase the mortality and morbidity in these groups. But the whole chain of events began with an **adult** member becoming incapacitated. Similarly, if a child falls sick, this in turn affects the economic status, and thereby the nutritional status, of the whole family. An adult member would have to take time off from work to take the child to the health centre and this would affect the family's economic status.

The income and expenditure in a poor family is so tightly balanced that any additional expense or decrease in income has an effect on all the members. This is why people in poor families are often forced to decide whether the health of a sick child is more important or the wages earned by an adult member.

Thus in a poor family, every member is economically vulnerable and hence susceptible to illness, including the adult members. In this situation the health of adults assumes a greater significance since their health is absolutely important for maintaining the health of the family. From this view of social reality then, giving special importance to any one group or disease is really meaningless.



## 5 : Nutrition



In the last three chapters we have seen that under-nutrition is the main cause of morbidity and mortality in all age groups. Since this is the most important health problem of the majority of the people it is important for health workers to understand the reasons for undernutrition. These reasons are discussed in Part A of this chapter.

Health workers usually deal with the problem of undernutrition by giving health education and conducting feeding programmes. Part B of this chapter discusses the limitations of this approach and further goes on to show that these strategies, together with the other policies of the government, are inadequate to deal with the problem of undernutrition in the country.

### Reasons for undernutrition

#### Is lack of proteins the major form of under-nutrition in our country?

It is commonly believed that protein deficiency is a major nutritional problem in India. This problem has gained a great deal of attention since the 1960's. At that time a report prepared by the Advisory Committee on the Application of Science and Technology to Development pinpointed protein deficiency in Indian diets as the main cause of malnutrition.

The Committee also stated that diets based on food grains do not contain sufficient protein to meet the protein requirements of the body and therefore need to be enriched with good quality protein such as meat, fish, eggs and milk. This formed the basis of nutrition advice. Health messages therefore encouraged people to eat meat, milk, eggs and other animal proteins. Later research however, showed that both the above assumptions were incorrect.

Studies done by the National Institute of Nutrition, Hyderabad, on undernourished children showed that protein deficiency does not and cannot exist by itself in a diet based on cereals (such as wheat, rice, millets etc). Protein deficiency only arises when it is accompanied by a deficiency in calories.

This is because the body's most important requirement is energy, i.e., calories. The body's calorie requirements are usually met by the consumption of carbohydrates and fats. If however, these are not consumed in sufficient quantities, then the body uses protein to make up the energy deficit. The following table shows the energy and protein requirements of children below the age of five years, and also shows the amount that an average child usually consumes.



### Daily calorie and protein consumption of rural children

Age	Calorie usually consumed	Protein usually consumed	Calorie requirement	Protein requirement
2-3 yrs	860	20 gms	1200	18 gms
4-5 yrs	900	20 gms	1200	22 gms

From the above table it is clear that even though the diet of these children contained only 75% of the required calories, the protein intake was adequate or just a little less.

Most Indian diets contain a cereal and form the bulk of the food eaten. The popular belief that cereals are starchy foods is not completely correct. Cereals contain about 6 to 10% protein and are the main source of proteins in Indian diets. A three-year old child getting adequate calories, i.e., 1200 from his diet of cereal, will have adequate proteins in this amount to meet the daily needs of its body.

Cereal	Amount required to supply 1200 calories per day	Amount of proteins present
Rice	343 gms.	28.9 gms.
Wheat	351 gms.	43.4 gms.
Jowar	343 gms.	35.0 gms.

Similarly, if adults were to get adequate food to meet their calorie needs, their protein needs would automatically be met. The daily protein needs of an adult are 1 gm. of protein per kg. of body weight irrespective of the type of work being done by the person.

Even if we consider a diet providing only 2400 calories (the requirements of a sedentary worker) purely from cereals, this amount will provide more than the required amount of proteins for a man weighing 55 kg.

Cereals	Amount required to provide 2400 calories (gms)	Amount of protein present (gms)
Rice	687	58.00
Wheat	703	85.00
Jowar	687	71.44
Maize	701	77.00
Ragi	731	53.00

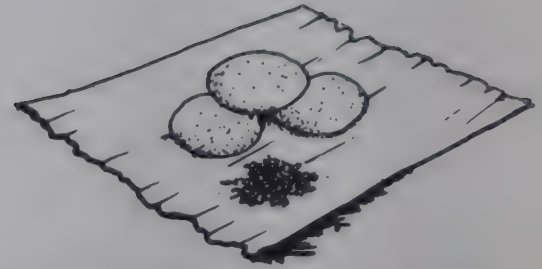
### Is it essential to eat expensive protein foods to meet protein requirements?

The assumption that people need to eat expensive protein foods such as fish and eggs is incorrect. A protein is made up of many smaller units called amino acids. Our body needs 22 different kinds of amino acids to function properly. Most of these amino acids can be manufactured by the body itself, but there are 8 amino acids which the body cannot manufacture itself.

These are called the essential amino acids. Therefore these essential amino acids have to be supplied ready made to the body from the foods containing them.

The quality of each type of food depends on the number of essential amino acids available in it. In some foods such as milk and eggs, the proteins have a pattern of amino acids considered most suitable for humans. Therefore they are called 'biologically complete' foods.





Vegetable proteins (such as dals, beans, peas, cereals etc.) on the other hand usually lack one or two of the essential amino acids and are therefore considered 'inferior' to animal proteins. For example, cereal proteins are deficient in two essential amino acids (lysine and threonine). The pulse protein on the other hand is deficient in a third essential amino acid (methionine) but has sufficient amount of lysine and threonine. If a cereal and a pulse are eaten together, deficient amino acid in one is made up by the other, and the body gets all the amino acids it requires.

The pattern of amino acids in this combined cereal-pulse mixture is as good as that found in animal protein alone. This is known as the 'supplementary action of proteins' in which food from two or more different sources supplement each others deficiencies and provide a well-balanced amino acid composition, comparable to and yet cheaper than animal protein.

Therefore an average Indian diet which has very little of animal protein, can be made equivalent to a non-vegetarian diet by the judicious combination of different kinds of food.

### **Are village people ignorant about food values?**

This is another myth that came into being partly because of the belief that people did not eat enough proteins, and partly from the belief that traditional food patterns were imbalanced. Common observations of certain traditional practices such as restricting food during illness and pregnancy, only strengthened these beliefs.

However, if we look at traditional Indian diets, many examples can be given regarding their scientific validity. The average Indian diet consists of a combination

of cereal and pulse (dal and roti, or rice and dal) and is therefore naturally balanced to give a combination of carbohydrate and protein. 'Idli' a south Indian preparation contains a cereal and a pulse. It is eaten with a chutney that consists of some dal and oil. Khichdi, prepared in the north, also contains a mixture of cereals and pulses.

Parboiling and hand pounding of rice, an age-old custom, helps to prevent the loss of protein, vitamins and minerals. Sprouting of gram, another common practice, increases the vitamin C content to significant levels. The traditional practice of fermenting food helps in increasing the vitamin B content and makes iron available to the body, e.g., curd, dhokla, khaman, idli, dosa, appam etc. Addition of tamarind to cooking vegetables helps to preserve the vitamins in the vegetables. The traditional practice related to increased intake of 'pan' after delivery also helps the mother to get increased amount of calcium in the form of 'chuna'.

Food habits of the tribals also confirm that people are not ignorant about food values. In the months before the harvest when food is in short supply, tribals rely on the forests for a variety of foods. These foods add quantity and quality to the usual cereal diet and make it more balanced nutritionally

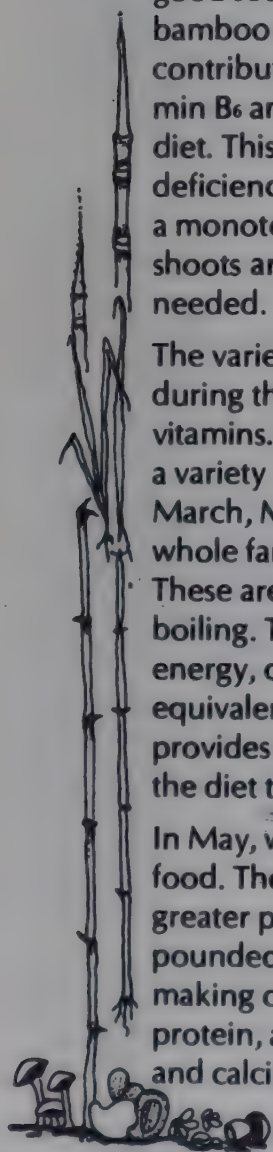
"A variety of tubers, tender bamboo shoots, mushrooms and green leafy vegetables sprout with the first rains and are collected and eaten immediately or dried and stored for future use. On an average, adult tribals daily eat at least 600 gms of tubers each and this provides them with a substantial amount of energy (3000 Kcals.) and protein (30 gms). An equivalent amount of these wild tubers provide more than twice the amount of protein than potatoes.



Bamboo shoots and mushrooms are also a good source of protein. The amount of fresh bamboo shoots eaten daily by adult tribals contributes on an average 35 per cent of vitamin B<sub>6</sub> and 17 percent of vitamin B<sub>1</sub> to their diet. This helps ward off vitamin B-complex deficiency common in people dependent on a monotonous rice diet. Excess bamboo shoots are also cut, dried and eaten whenever needed.

The variety of green leafy vegetables available during the rainy months supplies iron and vitamins. In the summer, tribal people collect a variety of edible fruits found in the forest. In March, Mahua flowers are collected by the whole family in the early morning hours. These are dried in the sun and eaten after boiling. They provide an important source of energy, calcium, vitamin B<sub>6</sub> and Niacin. An equivalent amount of dried Mahua flowers provides a greater amount of B<sub>6</sub> and Niacin to the diet than either sorghum or rice.

In May, wild mangoes form an important food. The kernel of the seed which forms a greater proportion of the fruit, is dried and pounded into a powder which is used for making chapatis. This dried powder provides protein, a substantial amount of carbohydrates and calcium."



(Centre for Science and Environment)

*The new forest policy prevents tribals from gathering food from the forest. This will certainly have an adverse effect on their health in years to come.*

*100 grams of the edible portion of :*

tender bamboo shoots contain	3.9 gms protein
Mahua flowers contain	9.7 gms protein & 311 calories
Mango seed kernel contains	2.6 gms protein & 192 calories
Mushroom contains	4.6 gms protein.

Writing on nutrition in an Indian village, John Hubley, sums up the situation very well. He writes,

"A rural community in India will have a highly developed network of values and beliefs on all aspects of health and nutrition. Many of the customs of the villagers have incorporated in them sound nutritional practices although this has not always been realised by the incoming development 'experts' who are often quick to condemn villagers as superstitious and ignorant.

My experiences at Govindpur suggest that a society evolves a pattern of eating and child-care consistent with sound nutritional practices and that society becomes nutritionally 'at-risk' when it is subjected not only to a deterioration in economic circumstances but also to a rapid change in way of life which breaks down the cultural mechanisms by which these sound practices are transmitted."

### **What determines nutritional status?**

The ultimate determining factor of nutritional status is the purchasing capacity, i.e., income of a person. Even if food is available in the market, a person may not be able to purchase enough quantities of it to meet all his energy needs.



In 1968-70 two Swedish sociologists did a detailed study of Thaiyur village in Chingleput district of Tamil Nadu. As part of this study, they also analysed the food habits in this village. They were particularly interested in finding out what was wrong with the food that people ate since they had observed that three-fourth of the illnesses in this village were related to nutritional deficiencies. Some of their conclusions are as follows :

A study of the general food pattern in the village showed that diets consisted mainly of rice and ragi. These supplied most of the energy and nutritional requirements. People preferred to eat rice because it was tastier and was associated with high status since it was the grain appreciated by the upper caste.

Ragi was the poor man's food. It was cheaper and eaten by the poor during those periods of the year when they did not have any self-produced rice, when their incomes were low and when the price of rice was high. The price of rice varied from a minimum of Rs. 1.50 per measure (2 litres) in the harvest season (February to March) to a maximum of more than Rs. 2.00 after the long, dry summer (August to September). The price of ragi did not vary so much and cost about Rs. 1.20 for every measure of flour.

The general pattern in most Harijan households seemed to be that the year was divided into two periods; one rice period when the household consumed rice which they had produced on their own farm, or received as wages during the harvest; and one ragi period when food grain had to be bought in the market. The length of these periods varied with the land ownership of the households and the number of members who earned wages during the harvest.

A more detailed study of seven Harijan households was done by the two sociologists. They found that the

nutritional status of these households was related to land ownership. The four households belonging to the small farmers (between 0.30 to 1.66 acres of land) consumed less than the average grain consumed by all the seven households. The middle farmers were able to eat better and consumed more than the average.

**Mean daily consumption of grain per consumption unit in seven Harijan (and) landowning households.**

Name of head of household	Land ownership (acres)	Daily grain consumption (gms per C.U.)
Veerabadran	0.30	480
Shanmugam	0.53	417 (partly ragi)
Shadrak	1.00 (shared out)	494
Dharman	1.66 (poor land)	365
Kotti Perumal	1.33 (very good land)	736
Balaraman	3.50 (good land)	645
Pachai Kannu	5.89	496

Mean daily consumption per C.U. : 519

*This data was collected only for the 9 weeks from February to May. Though this is not representative for the whole year it gives an idea of the differences in consumption between the different households and seems to be in keeping with the rest of the data which they had collected about this village.*

*For explanation of consumption unit, see glossary*

It was found that 59-75% of food expenditure of these households was on cereals alone. The remaining amount of money in the food budget had to be spent on pulses, vegetables, oil etc. which was necessary for



them to have a balanced diet. However, their food budget was not sufficient for them to eat enough quantities of these other foodstuffs. Nor were the poorer households able to increase their food budgets since 80-95% of their total household expenditure was already spent on food.

#### The proportion of total household expenditure spent on food

Name of head of household	Total daily food expenditure per C.U. (in Rs.)	% of total household expenditure spent on food
Veerabadran	0.66	85
Shanmugam	0.54	88
Shadrak	0.63	95
Dharman	0.45	78
Kotti Perumal	0.97	69
Balaramam	1.01	74
Pachai Kannu	0.72	65

The two sociologists summed up the situation of these seven households in Thaiyur as follows :

Within this low budget there is little scope for variation and improvement. The Thaiyur Harijans cannot adopt the strategy proposed by nutritionists that an adequate amount of **cereals alone** can reasonably satisfy both the calorie and protein requirements. This would mean that they would need to eat more than 600 gms. of cereal which is clearly out of reach of the Thaiyur poor.

The opposite strategy is equally out of their reach; an increased consumption of pulses, vegetables, animal protein would necessarily reduce the amount of money needed to buy cereals. This in turn would diminish the calorie intake and prevent the utilization of the added protein.

So the Thaiyur Harijans seem to have reached a rather satisfactory optimum within the limits set by their inadequate food budgets. They spend both money and effort in adding valuable nutrients to their diets.

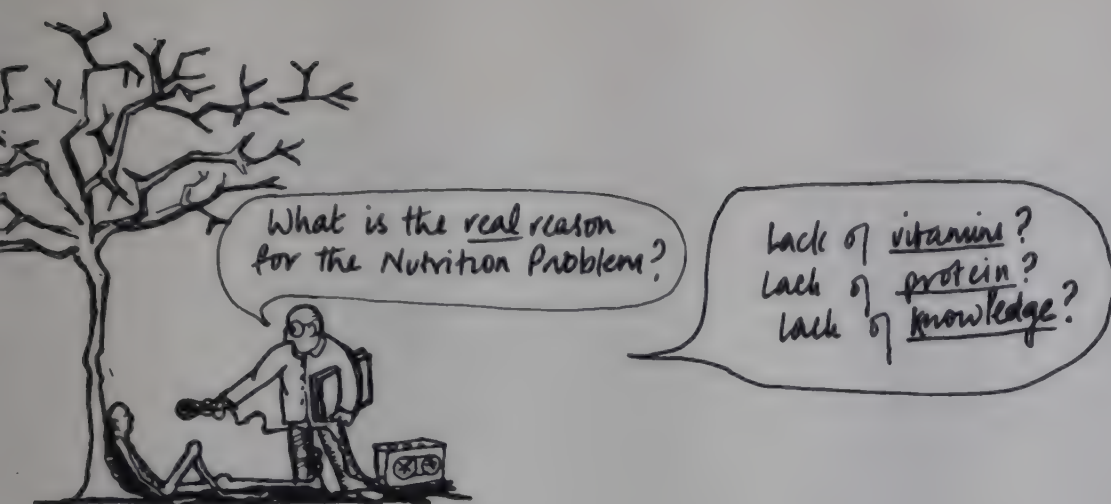
Fish, for example, is valuable. 100 gms of dried fish may contain around 60 gms of protein. Harijans buy dried fish or catch it themselves and dry it. Still 100 gms per consumption unit is beyond their reach. People even eat field crabs and snails, although they do not relish them, in order to add nutrients to their diets.

People are also too poor to be able to afford sufficient quantity of pulses. In recent years, moreover, the prices of pulses have gone up and their scarcity has increased faster than that of the cereals. Dairy products and other animal proteins are real luxuries which poor people only taste on the few festival days of the year. Most vegetables including green leafy vegetables are also too expensive, and few people have suitable land for kitchen gardens. Fruit trees are also scarce.

As far as we can understand, only an increased food budget or decreased food prices would allow any major improvement in the nutritional status of the majority of the Thaiyur population.

In view of what we know about the income distribution in Thaiyur, we can very well conclude on the basis





of these data that most people are so poor that they are forced to spend 70-90% of their incomes to achieve a nutritional level that from all points of view including their own subjective one, must be regarded as sub-standard.

*This extract has been taken from **Pills against Poverty** by Djurfeldt and Lindberg. We have changed the language in order to simplify it but the meaning has not been changed.*

The fact that people do not have enough money to purchase enough food is further confirmed by the government's own figures that 50.82% of the people in rural areas in our country live below the poverty line.

## Summary

In the past it was generally believed that insufficient intake of one particular nutrient (vitamin, protein, iron etc.) was the major cause of nutritional deficiency. Therefore the term 'malnutrition' (faulty nutrition) came to be widely used. The available data, as we have seen shows that the most prevalent form of nutritional deficiency is 'undernutrition' (lack of food). Just as protein deficiency does not usually exist by itself in India, similarly Vitamin A or iron deficiency also do not usually exist by themselves. They are a part of general undernutrition.

The nutritional problems in our country are not due to ignorance or the lack of any particular nutrient. The basic problem is that people do not get enough calories from the amount of food they eat. The inability to purchase food because of poverty is the most important reason for undernutrition in our country.



## What was the Government's response to the problem of undernutrition in our country

Undernutrition is not a new health problem in India. As far back as 1946, when the Bhore Committee reviewed the health status of the Indian population, diet surveys had already been done. These surveys showed that about 30% of the families surveyed consumed insufficient amounts of food to provide the necessary energy requirements.

At that time, it was also known that insufficient diet contributed to the high mortality and morbidity in the general population as well as in infants and pregnant women. Insufficient diet had also been associated with a high incidence of tuberculosis.

In spite of all this information, it was only after 1960, a full 13 years after the Indian government took over, that efforts were made to deal with the problem of undernutrition. Since that time 3 major strategies have been adopted by the government.

- \* nutritional programmes which form part of the health services
- \* increasing food production and purchasing power of people
- \* population control.

This chapter discusses the first two strategies. Population control is discussed in chapter 7 of this section.

## Nutrition programmes of the Government

One of the first nutritional programmes launched by the government was the Applied Nutrition Programme 167



(ANP) in 1963. This programme was aided by International Agencies such as UNICEF, FAO & WHO. The ANP as the programme came to be called, was to improve the nutrition of lactating and pregnant women and children. The chief objectives of this programme were:

- to encourage production of protective foods such as eggs, fish, milk, vegetables and fruits.
- health education to promote consumption of the above foods by mothers and children.

The component of health education was given great emphasis in this programme. In fact the programme had been developed “to **teach** the village people how they can increase and improve their food supply **through their own efforts**”. (Park & Park)

This programme continues to be in operation and at present covers 1,375 community development blocks and serves 1.7 million women and children. “It is conceded that the programme has not made the expected impact in terms of stated aims and objectives. Its demonstration effect has not been felt in most areas.”

(Park & Park)

Considering all that we have discussed about the economic constraints of poor people in the village, it is not very difficult to see why the programme failed to have the desired impact.

**First**, the foremost need of poor families in the village is food to satisfy hunger and meet basic energy needs. Even if families had been given chicken so that they could eat eggs and chicken, they would hardly have done so. The logical thing for them to do would have been to sell the eggs and buy cheaper foods.

**Second**, even if they had consumed this fish, meat and eggs, given the fact that the diets of the poor lack sufficient calories, these expensive foods would have been used up by the body to provide calories and not the high quality protein they were intended to provide.

**Third**, if the intention of the government was to increase production of nutritious food, then it would have been more realistic to increase production of pulses, ragi and millets—food items which the poor can afford and which are part of their food culture. But, production of these very food items actually declined during this period. (see pages 173 & 176).

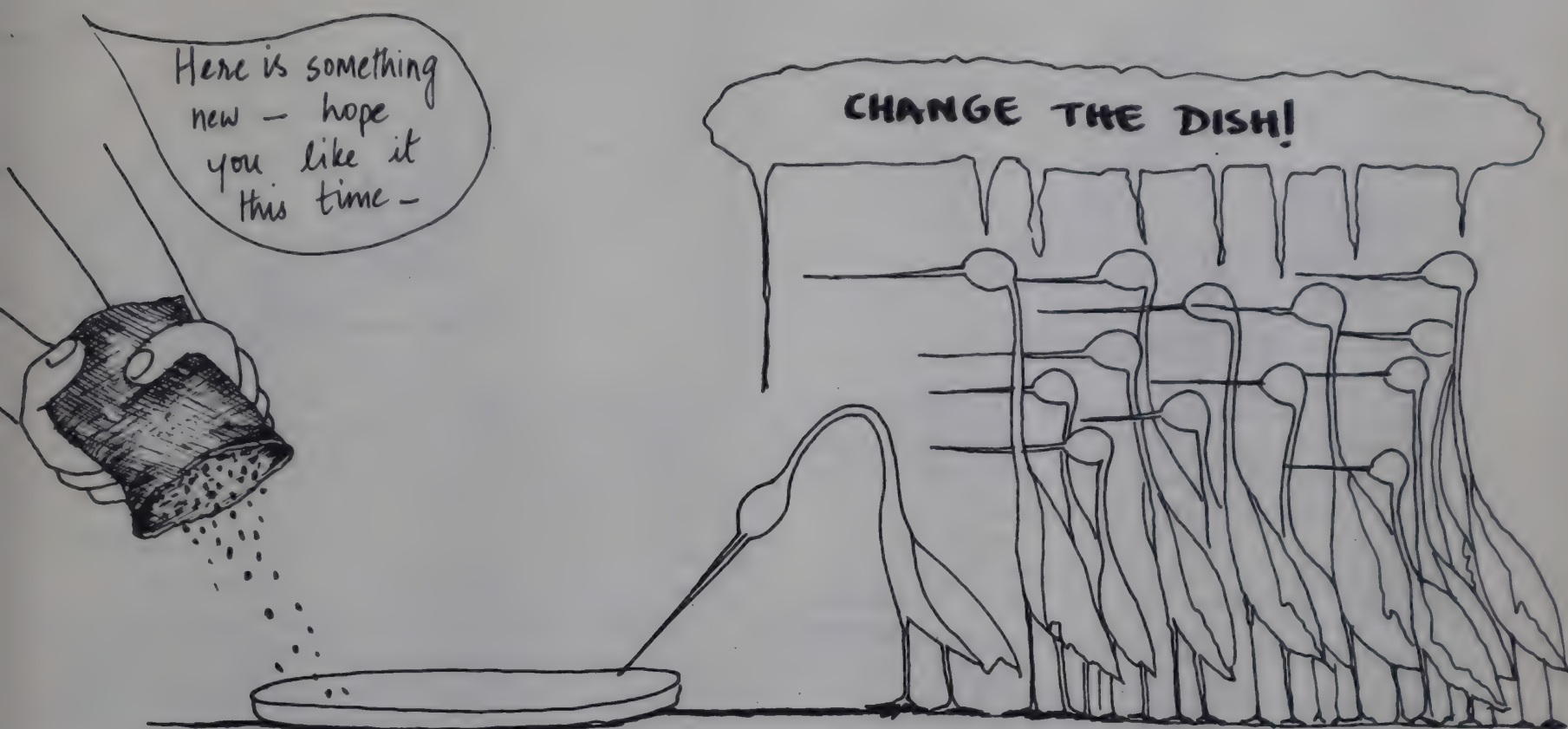
After seeing the limited impact of ANP, the fourth five-year plan tried to evolve an integral programme to improve nutritional status. These were the feeding programmes for pregnant/lactating women and pre-school children; mid-day meal programme for school-going children; Vitamin A deficiency and anaemia prophylaxis; and the ANP. To these programmes, Integrated Child Development Services were added.

*The following critique of feeding programmes has been adapted from ‘How relevant are feeding programmes’ by Dr. Imrana Qadeer, published in MFC Bulletin, February, 1977, and ‘How successful are supplementary feeding programmes’ by Dr. Kamala Jaya Rao, published in MFC Bulletin, July, 1983.*

In these programmes, three nutritional problems were selected for immediate action, i.e., calorie-protein deficiency, iron-deficiency and Vitamin A deficiency. The existing data, however, did not justify this strategy of viewing the three nutritional problems, as equally important and independent of each other.

Surveys done in India and other underdeveloped countries had shown that in the majority of the people, these deficiencies coexisted and had a common cause





(lack of food, infection and worm infestation). These surveys also showed that the percentage of isolated deficiencies (e.g., iron deficiency existing in spite of adequate food intake) was small, and in the case of Vitamin A deficiency, a child treated for undernutrition may show signs of Vitamin A deficiency without complaining of night blindness.

This is not to undermine the importance of iron or Vitamin A deficiency but to emphasise that if calorie deficiency is dealt with, not only are proteins taken care of but also a major chunk of other important deficiencies. Thus, there was no need to view all these three problems as separate ones. Instead they should have been tackled as a single programme aimed at improving food intake.

**In defining the target population** for these programmes it was stated that "since the entire population living below the poverty line cannot be covered by such a programme, some selected population among whom malnutrition is most widespread are the obvious choice of such a programme". It was therefore decided to extend feeding programmes only to pregnant/lactating women, pre-school and school-going children who belonged to the weaker sections.

If the entire target group of pregnant/lactating women and pre-school children from the poorest 40% of the population had to be covered, it would have meant covering more than 65 million people. This figure would have been large enough to absorb the total resources allocated for nutrition.

The programmes were however planned in such a way that by the end of the fifth five-year plan only 10 million of the target population was to be covered. Both these factors led to the coverage of just a small fraction of the target population. In fact, except for a few programmes in the slums and tribal areas, the other feeding programmes did not concentrate upon the lowest income groups.

The inclusion of school children as a priority group was also questionable. Among children, undernutrition affects those between the age group of 1-4 the most. It is also well documented that it is only the children from the privileged sections who go to school while the poor stay out. Thus, inclusion of school meal programmes without first covering all the pre-school children of the lower economic groups cannot be considered a rational priority.





With regard to **resource allocation** although 405 crores of rupees had been allocated, only one-half was spent on feeding the really needy. This can be seen from the distribution of resources given below.

Resource allocation	Rupees (in crores)
Department of Food (food processing, pilot projects etc.)	50
Department of Community Development	20
Department of Health and Family Planning (iron and vitamin A supplement)	5
Department of Education (mid-day meal)	112
Department of Social Welfare (pre-school feeding programmes)	218

only this amount would have reached those most in need

Further, the feeding programme was expected to provide food for 300 days in a year to each beneficiary. To cover the initial target of 10 million beneficiaries, Rs. 218 crores were allocated. At this same rate of expenditure, more than six times this amount would have been required to cover the target groups in the 40% of the population which belong to the lower economic group. This amount is clearly beyond the capa-



city of the government to mobilise in the near future. Thus it seems unlikely that the government will be able to extend the programme to the entire target population that it wants to reach.

The feeding programmes also emphasized the distribution of processed foods such as fortified bread, Balahar, Bal Amul, and other bakery products. This resulted in increasing the profits of the food processing industry. It would have been cheaper and more culturally acceptable to use the locally available nutritious food combinations.

In the actual **implementation** of the programme too, there have been several problems. Food is distributed in two different ways. The first is on-the-spot feeding programme in which children are assembled at a Balwadi or some other place and are fed once a day. The second type of feeding programme is the take-home distribution programme. Food adequate for a week or more is distributed at the centre and it is carried home to be eaten.

In the **on-the-spot feeding programme**, the problem was that the older child who brings the pre-school child to the centre had to watch the younger child eat. If the older child was also hungry, due to poverty in the family, it seemed unethical to let it go hungry just because it was not 'biologically' vulnerable. The younger child was also not able to eat all the food in one sitting and therefore the uneaten portion was either wasted or eaten by the older child.

Moreover, in this type of programme, feeding took place for only 250-300 days in a year because of breaks and holidays. In the **take-home system**, the food was often shared by other members of the family. But it was also noted that the sharing usually took place among children below the age of ten years, and not





with adult members. This partly depended on the nature of food distributed. Any food identified by the family as children's food was generally not consumed by the adults.

In one study conducted in Columbia, South America, enough food was given to take care of the energy gap among all members of the family. This was done to overcome the problem of sharing. Pregnant/lactating women and young children were however the real targets of the programme. The food ingredients were those commonly used by the local population.

When the programme was evaluated, it was found that the total calorie intake of the beneficiaries had not increased. The conclusion was that, either part of the food was being sold in neighbouring villages, or the money that normally went to purchase food was being used for buying other necessities. Thus, the food given by the programme was being used as a **substitute and not as a supplement** to the food normally consumed everyday.

This problem of substitution is seen in both the on-the-spot feeding as well as in the take-home programmes.

The general feeling among the adult members in the family was that, since the child was already getting a meal a day, the food that was given otherwise from the family pot could be shared among the other members. It was observed that "for most programmes, the supplement was designed to meet about 40-70% of the es-



tablished energy gap. In point of fact, only 10-25% of the gap was closed."

In spite of all these problems related to feeding programmes, some studies have shown the **value of such programmes**. Evaluation of a Special Nutrition Programme organized for tribal children showed that there was no Grade III (severe) undernutrition among these children. Incidence of Grade II & I was also less as compared to children who were not part of the programme.

The evaluators attributed the success of the programme (which was on-the-spot type), to the fact that villages were compact, local people were employed as helpers and the food material was directly supplied to the organizers. Another study showed that although all undernourished children benefited, those severely undernourished benefited the most, the increase in heights and weights being more in these children.

If feeding programmes are found to help severe grades of undernutrition and prevent other children from becoming severely undernourished then the programmes cannot be considered completely unsuccessful. But the question still remains: for how long will a country be able to feed children who may number more than 100 million or more? Right now feeding programmes are being promoted as short-term strategies till such time as economic status improves. As we will go on to see, even the policies related to improving the economic status are not really achieving their purpose.





## Government policy related to increasing purchasing power of the people

While the government's entire strategy of economic development is intended to increase the standard of living and thus increase the purchasing power of people, a more direct strategy to improve economic status is by fixing minimum wages for all workers.

Quite obviously the minimum wages for all categories of workers cannot be the same since all workers are not engaged in the same type of work. However in deciding the absolutely minimum wage which should apply to all workers (that is, no worker should get less than this wage), the government has based its calculations on nutritional requirements.

As we have seen, nutritional requirements of people differ according to the type of work done by them (light work, moderate work, heavy work). For deciding minimum wages, the government used the calorie requirements of sedentary workers (2400 calories for light work) as the absolute minimum calorie requirement for all adults. They then calculated the amount of food stuff which would be required to provide these 2400 calories. On the basis of this, the government fixed minimum wages and also determined the number of people below the poverty line. According to government estimates, 50.82% of the rural population was below the poverty line, in 1983.

Some experts however questioned these estimates and felt that these standards were too high on the following grounds:

1. The basic energy requirements vary from individual to individual. If these variations are taken into account then the minimum requirement would be less than that recommended by ICMR.

172 2 They also pointed out that the human body adapts

to low food intake over long periods of time by reducing body weight and height. It is this adaptation which probably accounts for the fact that labourers weigh less than the average weight for Indians, and Indians on the whole have shorter height and lower body weight as compared to the Western populations. Because of their smaller size, according to these experts, such people require smaller amounts of food to stay healthy.

According to these experts, even the standards set for a sedentary worker would be too high for an average Indian. They estimated that from their view point, only 25% of the urban population and 15% of the rural population would be below the poverty line. This has created a major controversy not only with regard to nutritional requirements, but also with regard to the calculation of minimum wages and assessments of poverty.

While it may be true that Indians have adapted to their grossly inadequate diets, adaptation in itself cannot be seen as the same as health. Poor people in our country may achieve a stable but lower body weight and still continue to have several symptoms of undernutrition as were described in the two studies in the last chapter. Further, studies have also shown that the differences in body weight between populations who have adapted to low nutritional levels, and populations whose nutritional levels are much higher, can get reduced over a period of time if people get enough to eat continuously.

"There are also strong arguments that ethnic variations in height and weight are relatively less important than was thought in the past. The classic example is the Japanese living in America whose height and weight after two





or three generations in that environment resembles that of other Americans rather than that of the Japanese in Japan. At the same time, with improved nutrition and health care in Japan, each ten year group of children is taller”.

Another study done in Cali, Columbia, has shown that with adequate nutrition even three-year old children, who had been previously malnourished, can make up for early stunting and poor growth.” (Morley).

The implication of such studies is that if everyone had enough to eat, there would be no need for human beings to adapt to poor nutrition by acquiring a small body build. However, studies such as these would be important if the basic aim was to assess optimum food requirements for health. Unfortunately, in our country the controversy regarding food requirements has turned the attention of scientists in just the opposite direction, i.e., to assessing the absolute minimum food required to survive.

### **Implications of this controversy**

Accepting or rejecting the above arguments really depends on what one hopes to achieve. The government may be hoping that by laying down a minimum standard of nutrition for survival, it would be in a position to assess the percentage of population whose nutritional intake would need to be increased.

Even if this were true, then one wonders how realistic these standards are in assessing nutritional status. This becomes clear if we consider which section of the population is below the poverty line. As we saw in chapter 8, of section I, the people who are worst off economically are the agricultural and non-agricultural

labourers who have no land or other assets of their own. For such people, survival depends on the money earned by selling their physical labour for wages.

It is these people, who having no surety of employment, take up whatever work is available. These are the daily wage labourers who carry heavy loads such as stones, cement, bricks at construction sites; who break stones in quarries; pull heavily loaded carts; and do the heavy manual tasks in agriculture. For such work the calorie requirement is much higher, i.e., 3900 calories. Even if these workers were to get 2400 calories everyday and technically be above the government’s poverty line they would still be undernourished with a deficit of 1500 calories.

It was on this basis that Dr. Abhay Bang, a doctor who had been working in a rural area in Maharashtra, questioned the minimum wages fixed by the Maharashtra government at Rs. 4.00 per person. Using the calorie requirements of a person doing heavy work, he calculated that a family with two adult working members needed a minimum of Rs. 24.00 per day in order to survive at a minimum level of living. Dr. C. Gopalan, a famous Indian nutritionist, (also basing his calculation on the calorie requirements of a person doing heavy work), estimated that a labourer’s family needed a minimum wage of Rs. 22.00 per day.

According to both these estimates the minimum wage fixed by the government is clearly too low. Even if both the men and women in the family earned Rs. 4.00 per day they would together earn only Rs. 8.00 which is much lower than the estimates of Rs. 22.00 or Rs. 24.00. From the nutritional point of view, minimum wages fixed by the government would be of little help in enabling people to meet their needs.

In reality, even these estimates (of Rs. 22.00 and Rs. 24.00) are inadequate. This is because these esti-





mates have been made on the basis of the (average) existing body weights of labourers (44 kg), which are lower than the average weight of well nourished Indians (55 kg). If minimum wages were to be calculated on the basis of calorie requirements for people with these higher body weights, i.e., 55 kg, then minimum wages would have to be correspondingly higher also.

### Other limitations of minimum wages

We have seen that in a rural household the energy spent by women, men and children in all tasks necessary for survival (household as well as those recognized as economic activities) is 53, 31 and 16 per cent respectively.

The women also require extra energy during the period they are pregnant or lactating. The total energy requirement to meet increased demands during pregnancy has been estimated at about 83,400 calories. This means an average increment of 300 calories per day over the 280 days. During lactation if the woman produces 850 ml. of milk a day for six months, the total energy requirement to make that much milk is 135,000 calories. This would mean an extra 550 calories per day. (ICMR).

The minimum wages fixed by the government does not take into consideration any of the above mentioned extra energy requirements of women. In fact, women are often paid less than men for the **same activities**. The National Commission of Labour noted that "in the large sectors where women are employed, viz., agriculture and small industries, evidence shows that in fixing wage rates some state governments have not been free from discrimination against women".

Further, the wage rates for the agricultural tasks traditionally done by women (sowing, weeding, transplan-

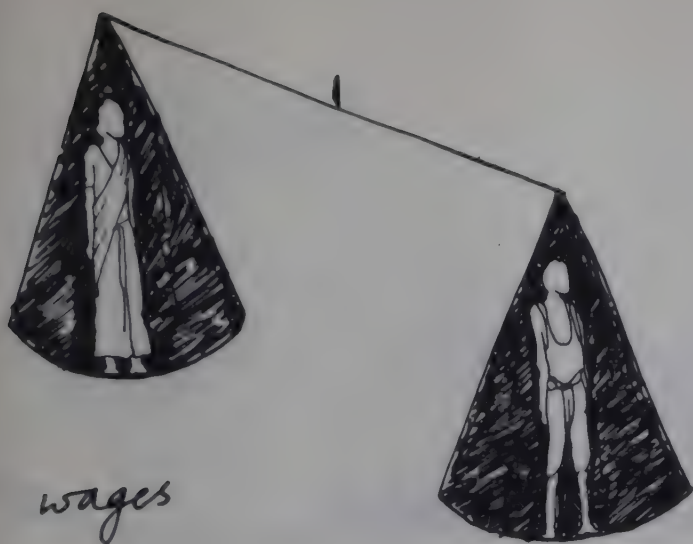
ting, winnowing, threshing, and harvesting) are much **lower** than the agricultural tasks done by males (ploughing).

Regarding extra energy requirements that a woman needs during pregnancy and lactation, it has been estimated that out of 30 years of reproductive life, 16 years are spent in a state of pregnancy or lactation. After all the health education that is given to women to eat more food during pregnancy, it is really strange that in calculating minimum wages, these extra needs are not taken into account. Further, the extra energy the women spend on household tasks is also not taken into account because these tasks are considered **non-productive**.

Usually the daily wages of women are lower than those for men. Thus, if a family needs a minimum of Rs. 22.00 then the minimum wage is fixed as Rs. 12.00 for men and Rs. 10.00 for women. This implies that the government is sanctioning the fact that in a poor household it is necessary for both the 'adult' members to earn to meet the needs of the family. However, for no other category of workers are wages fixed in this way. Generally, the man's wages are supposed to be enough to support himself and his family, and if his wife works it is to bring in an additional income.

With the constant rise in prices that keeps taking place, usually a woman's income is considered to be of help in maintaining the family's standard of living. But in setting minimum wages it is assumed that in a labourer's family both the man and the woman will work. Since the entire wage is already used to meet the family's needs, such families have no way of compensating for the rise in prices. Nor do they have the possibility of saving up for future emergencies as the wage only allows for the **cheapest** food.





Needless to say, such families invariably end up borrowing from the money-lender for sickness, death and marriage which in itself upsets the family's economy and its food intake.

Further, since minimum wages are fixed for the poorest sections of the population, it makes them the only people in the country whose wages are fixed in this manner. If everybody in India were to receive wages based on a calculation of their nutritional requirements, labourers should receive the highest wage in the country. In fact their wages are the lowest. The wage structure in our country therefore reflects and reinforces the social value that mental work is superior to physical work, by paying more to those engaged in mental tasks. In doing so the country looks down upon people doing physical work.

Considering all the above limitations the government's minimum wages are extremely low by all standards. Even if these wages were implemented (which often does not happen) they are unlikely to increase the purchasing power of people to a level where a family can meet its nutritional and other needs adequately. This is because the energy gap is so great that the addition of a few rupees to the family budget will not substantially lower the incidence of undernutrition.

Finally, the concept of minimum wages itself needs to be questioned in an exploitative society. As we have seen in chapter 8 of section I, labourers are not given their rightful share of the produce. By giving minimum wages which are slightly higher than the present wage, the government creates the illusion that labourers are now being given a just wage when in fact they are not. Thus the government legitimizes exploitation and thereby the accumulation of wealth by withholding the just share of produce from the workers.

## Government policies related to increasing food production in the country

According to the government, one of the main reasons for undernutrition is that the country does not produce enough food to meet the needs of the population adequately. Therefore the government has been attempting to lower population growth on the one hand and increase the production of food on the other.

### Production of cereals

The production of food grains gained momentum during the 1960s with the onset of the Green Revolution. High yielding variety (HYV) seeds were introduced in areas which already had good irrigation facilities. Two things happened as a result of this strategy. Firstly, the increase in food grain production was not uniform for all the food grains. Except rice and wheat, the acreage for which increased, the acreage under cheaper coarse grains commonly used by the poor actually went down in the last several years as can be seen from the table below :

Cereal	Area under cultivation (in thousand hectares)	
	1970-71	1979-80
Rice	37592	38974
Wheat	18241	21964
Ragi	2472	2582
Jowar	17374	16449
Bajra	12913	10595
Maize	5852	5752
Barley	2555	1745

Source: Ministry of Agriculture, G.O.I., 1981





*The production of Ragi probably went up as it has now become a cash crop and used in the production of Ragimalt, weaning foods etc.*

Secondly, while food grain production increased tremendously, food prices did not come down appreciably. The government had stated that increased food production would lower prices and poorer people would then be able to purchase the food easily. In reality, this did not happen because the big landowners formed a major pressure group and prevented prices from coming down. The extra grain produced was either stored by the government as buffer stocks or exported to other countries. In 1980 India **exported** 162 million US dollars worth of rice.

### **Production of 'high' protein foods**

In the last twenty years, there has been a major thrust in the production of high protein foods specially milk. Based on the model of AMUL dairy cooperative, a programme under the name of 'Operation Flood' was launched in 1970. This programme intended to give the milk producers in the rural areas an opportunity to sell their milk to urban consumers by providing milk storage and processing facilities.

This programme has come under severe criticism in recent years. For instance, one of the main strategies used for increasing milk production is the improvement of cattle stock by cross-breeding with exotic cattle. These cross-bred cows are however highly vulnerable to cattle diseases and also require more feed as compared to the indigenous cows. It has been stated that the cost of feeding and looking after the cross-bred cow actually works out to be more expensive than the amount of milk this cow produces.

Apart from this, 'Operation Flood' has had a serious impact on the nutritional status of poor families. Formerly, fresh milk was not a direct cash commodity in the rural areas. Being unstable, and subject to spoilage on storage, milk was either used fresh or soon processed for production of ghee. The ghee was essentially the cash commodity from milk and was usually sold. The buttermilk produced during the ghee-making process was abundantly available and was consumed by the family members in rural areas. (Buttermilk is a nutritious food consisting of protein and minerals.)

But with the setting up of cooperatives with efficient milk collection and modern storage facilities, fresh milk itself has become a cash commodity and is drained away from the rural people. The dairy units in the urban areas end up by getting a surplus of milk, all of which is not sold to the urban customers as fresh milk. This is not due to the lack of needy customers in urban areas but is once again due to the inadequate purchasing power of the urban poor.

The surplus milk that is not sold as fresh milk is therefore converted into expensive dairy products such as cheese, ghee, milk powder, butter, icecream and chocolate. In fact, in 1980, 22% of the total milk procured through 'Operation Flood' was processed into dairy products of which tinned baby food formed the major bulk (26,800 tons). The tinned baby food products were also the ones that turned out to be the most profitable.

Official reports also state that in Gujarat, which is the chief state involved in 'Operation Flood' there is a relatively high incidence of protein-calorie malnutrition in children below the age of five years. There are other criticisms levelled against 'Operation Flood' also, such



as the dependence on aid from other countries; the domination of the milk cooperatives by the big land owners who also own the largest number of cattle; and the elimination of women from the traditional occupation of curd, butter and ghee-making at home.

Aside from 'Operation Flood', there are several other contradictions in the food policy adopted by the government with regard to protein foods.

India has been **exporting** 'high protein' foods such as meat, fish, oilseed-cake etc. to other countries. This export of food has been steadily increasing over the years as can be seen from the table below.

Further, if the government had wanted to increase production of protein-rich foods, then they could have encouraged the production of the multi-purpose food which had been developed by the Central Food Technological Research Institute (CFTRI) at Mysore. This formulation consisted of groundnut flour (75%) and bengal gram flour (2.5%) fortified with vitamins and minerals and came to be called the Indian Multi-purpose Food (MPF). The value of this formulation was well established and in the early 1960s manufacturing units were set up in Coimbatore, Mysore and UP to produce this cheap yet nutritious food. There were plans to set up a few more manufacturing units as well.

Food item	Export (Value in US million dollars)					
	1970	1976	1977	1978	1979	1980
Meat	4.3	19.5	26.7	26.6	33.5	54.6
Fish, fresh/simple preserved	36.2	187.9	188.8	254.6	322.1	248.0
Fish tinned prepared	5.0	0.8	1.4	2.9	5.9	—
Oilseeds, nuts & kernels	8.0	88.8	17.8	9.4	23.5	30.8
Rice	5.6	13.9	6.0	51.4	61.4	162.0
Vegetables fresh/simple preserved	17.4	36.6	21.6	18.0	33.1	17.5



However, when the American Relief Organisation (CARE) offered to give India a 'free' gift of corn-soya-skim milk, the MPF plan was abandoned. Instead, a 5 crore worth soya bean processing unit was imported by the Food Corporation of India (a government firm) to increase availability of protein food produced from soya bean. Since soya bean was not an indigenous foodcrop, farmers were encouraged to cultivate this new crop. Much promotion and publicity was also given to encourage the consumers to buy the finished product. Other manufacturers were also encouraged to produce easy to consume high protein foods. India right now produces protein 'foods' such as biscuits, protein drinks, special chocolates and protein enriched bread, all of which are food items consumed by the rich.

In all these attempts to introduce and increase expensive protein foods, the cultivation of pulses (cheap, indigenous protein food) has received little attention. In fact, the availability of pulses, has declined steadily over the last 10 years, i.e., from 51.9 grams per person per day in 1970 to 37.0 grams in 1981. The requirement recommended is 40 grams per day per person. This decline is not due to the growth in population alone.

The more important reason is that the annual production has not increased since 1956. In fact the area devoted to pulse production has actually decreased from 22.53 million hectares in 1970-71 to 22.46 million hectares in 1980-81. This has resulted in the increase in prices of the different pulses so much so that poor people are not in a position to add this essential item to their food.

Thus, in terms of both cereals and pulses, the government's strategy has not really helped to increase food

availability in poor households. In reviewing the food situation in the country, the report **Health for All** notes that:

India has adequate land and water resources and enough technical know-how to feed even the stabilised population of 1,200 million. Over the last 30 years, agricultural production has given a good account of itself, inspite of the vagaries of the monsoon; and given the right policies, its potential for further growth is still larger. If all cultivable land could be utilized and if the full irrigation potential is realized, even existing technology would double total agricultural production or even more over the next 20 years. There is also considerable increase in food grains possible if the cultivation of cash crops like opium or tobacco could be restricted. It could, therefore, be confidently asserted that we have the resources and technology to produce all the food we need. If we do not actually produce it, the reasons are largely social, or managerial and political.

When it comes to the distribution of available food (and our malnutrition arises, not so much from inadequate production and preservation, as from hopelessly unsatisfactory distribution), the failure is essentially economic, social and political. It is the poor who do not have the capacity to buy food.

**Health for All: An Alternative Strategy.**





## Conclusion

The major strategies adopted by the government to reduce undernutrition in the country have been to increase food production, increase purchasing capacity and organise feeding programmes.

Feeding programmes are considered to be a short term strategy, but would be relevant only if the government was serious about improving the standard of living of everybody. From whatever we have seen so far, as long as the exploitative economic structure continues, it is unlikely that any significant improvement will take place in the economic status of the poor.

In this situation strategies such as feeding programmes and minimum wages themselves become oppressive strategies in the long run. This is because, firstly, these programmes are used as substitutes for radical social and economic change; secondly, these strategies help to divert the attention of the poor from the real causes of undernutrition, and further, help to create a kind-hearted image of the exploiters.

Extract from a circular of "Catholic Relief Services" which organizes feeding programmes in the voluntary sector.

Date 11th January, 1982, Page 2

### 2. Publicity

This matter has been brought to your notice on several occasions. It has even been included on a clause in the consignee/Distributor Agreements that you are required to sign before you are included in the program...Despite this there are still many cases where the Publicity aspect is forgotten and beneficiaries are not aware where the food and oil come from. Unfortunately this has even been noticed in schools where the beneficiaries are capable of giving a correct reply to the question "Do you know where the food comes from?" It is not too much to expect that every time a distribution is made, the person in charge of distribution asks the question and teaches the answer:

"From the United States of America."

Can we expect then that there will be no future occasions when beneficiaries, Regular Program or FFW, are not aware of the source of this generous and valuable gift.

Sd/  
Donald J. Rogers  
Director—Bombay Zone.  
C R S.



## 6: Health Education

Health education is an important activity which is carried out by health workers as part of their work. This education is aimed at people who are more likely to fall sick and also spread disease to others. According to **A handbook for Nutrition Trainers of Anganwadi Workers**, National Institute of Child Development and Cooperation, Delhi the "need for such education is probably greatest and most urgent for the poorer and vulnerable sections of the community." For this reason health workers are expected to use every opportunity to give health messages to those living in slums and rural areas.

According to a textbook in social and preventive medicine, the purpose of health education is to establish or induce changes in personal and group attitudes and behaviour so as to promote healthier living. In order to achieve this objective, every effort is made to make health education as interesting as possible by using methods such as posters, flashcards, puppet shows, slides and films. On the surface, it therefore seems that a health worker is merely giving useful information to people in an interesting way so that they will be able to lead healthier lives.

A closer look at health messages however, reveals that:

- \* health education conveys much more than the health message alone.
- \* health education looks at only some aspects of health.

This process of giving people selective information becomes clearer if we look at an actual flash card set and compare it with the real life account of a health worker.

### TUBERCULOSIS IS CURABLE



1. This is Vithoba and his wife Rukmani. They share the joys and sorrows of bringing up their children. They have two children, Krishna and Shoba. They have been living happily together but.....



2. For a month or two, Vithoba has not feeling well. He often has fever. He used to enjoy Rukmani's cooking, but now he has lost his appetite. He is losing weight. He has cough. Rukmani is worried.

Rukmani : "You should show yourself at the health centre."

Vithoba : "Oh its just the change of season. I'll be better in a few days.."



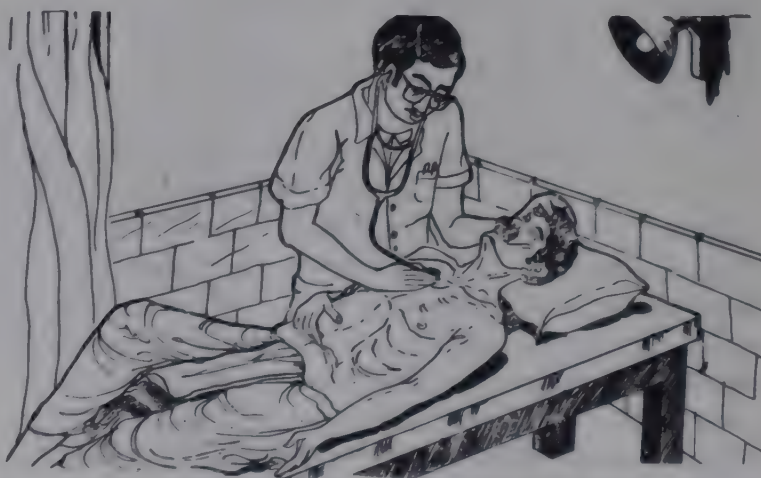
A health worker from a village writes about TB.

A villager who gins cotton may notice a gradual loss of weight and energy and may be a cough for several months. But so many of the poor are already exhausted and emaciated by life—they find the line between relative health and disease is imperceptibly crossed—and they think it is only 'weakness'. When work becomes impossible they seek quick help from private practitioners, knowing it will cost, but anxious to get well and back to work. They hope to get by with a strength-giving injection, a few pills may be, and a bottle of life-giving tonic which the doctor will prescribe. So a couple of chickens and some grain is sold to raise money.

The doctor well recognises the story and the appearance. He suspects it is tuberculosis. He knows the capacity of the poor—they will pay for the belief that they will get well, and as long as that belief can be sustained, they will keep on paying the same doctor. He also knows that this disease, if properly managed, has a good chance of continuing without cure for several years before the patient dies. Furthermore, the widespread attitude that TB is incurable, supported by the vast majority of cases which eventually end in death, and the doctor's own observation that patients cannot sustain regular treatment does not lead him to nurture any professional interest in obtaining a cure. Therefore, he is not interested in proving the diagnosis. A private practitioner will avoid telling a man that he is treating him for TB as long as possible. Otherwise he is sure to lose his patient to another doctor. Likewise, sending him for sputum test or X-ray, which may be available through the nearest government hospital, would be giving him away, or privately done, would use up available funds. He is not interested in pro-



3. As the days pass, Vithoba gets thinner. His cough gets worse. He coughs up thick sputum every morning. Vithoba's coughing keeps Rukmani awake at night. Vithoba feels very tired.
- Rukmani : "You should show yourself at the health centre."
- Vithoba : "All right, I'll go tomorrow. I am still having fever and I don't feel well."



4. At the health centre the doctor examines Vithoba's chest.
- Doctor : "Vithoba how long have you been coughing sputum."
- Vithoba : "For about one month, doctor."
- Doctor : "I will give you some cough medicines, And I would like you to come back again. Before you come, please spit some sputum into a clay pot and bring it with you next time. We will test the sputum them."



gnosis either—it will be sufficient to see that the man gets temporary relief and is kept fluctuating with a safe margin between cure and death, with an occasional dramatic rescue from death's clutches, for as long as possible.

What does the doctor's treatment consist of, aside from its psychological content? First on the list is Streptomycin injections, one daily if possible, which is more likely impossible if the patient lives far away. (He may be given tablets of Isoniazid in various proprietary preparations in place of Streptomycin, in which case he is certain to be sent off with a couple of impressive on-the-spot injections, such as liver extract and red-coloured vitamin B12). Next, he will be prescribed ethambutol tablets (under one of the marketed brand names), a second line drug for TB which is comparatively expensive but which is being promoted by multinational companies through their medical representatives as a first-line drug. Third, a corticosteroid hormone like betamethazone (again, under numerous brand names) will be routinely given or prescribed by most private practitioners at the start of anti-TB treatment, as it is expected to bring about rapid relief from symptoms and a specific false sense of physical well-being which may be the major factor in hooking the patient. Fourth will be a large bottle of mineral and vitamin tonic which also ironically contains something to stimulate the appetite of the person who is basically dying of hunger anyway. Fifth, a syrup will be added to suppress the cough.

The expense of the first week of such treatment works out as follows (approximately):

1. Inj. SM @ Rs. 3.00/day × 7	21.00
2. Tab. Ethambutol 1	
twice/day @ Rs. 2.50/day × 7	17.50



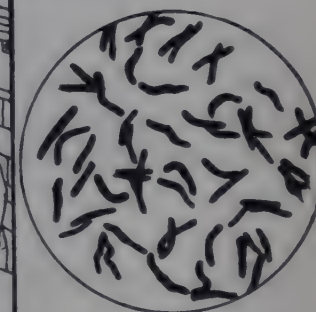
5. After a few days, Vithoba is still feeling ill. He has fever. He gets a clay pot and spits some sputum into it. Then he goes to the doctor. The doctor first examines the sputum under a microscope.

Doctor : "Vithoba you are very sick. Do you know why? You have tuberculosis in your chest. This is why you are feeling ill."

Vithoba : "Just as I feared."  
(to himself)

Rukmani : "This was our fate from the beginning." She begins to cry.

Doctor : "TB is not due to fate. Tuberculosis is caused by germs in the sputum. The disease spreads to you from a person ill with tuberculosis. Tuberculosis spreads by spitting and coughing."



6. Doctor : "Look, I see that you do not believe me. So I want to show you both the tuberculosis germs. This is microscope. It is like a very strong pair of glasses. When you look through microscope, you can see small small things which you cannot see just with your eyes."

First Rukmani looks and then, Vithoba looks through the microscope. He sees these germs which are shown on the right of this picture.

Vithoba : "Oh, I can see some long kind of worms here. Are they the tuberculosis germs?"

Doctor : "Yes they are the germs which are living inside your lungs, and they are growing there. But the medicine, I will give you, will kill the tuberculosis germs."

Rukmani wasn't listening (She kept on crying quietly).

Vithoba : "How did these germs get into my lungs?"

Doctor : "Some months ago, I think, someone with tuberculosis coughed and coughed near you, then the germs went inside when you took a breath. The germs then made their home in your lungs."



3. Tab. Betamethazone 1 thrice/day $\times$ 7 = 21 tablets	8.00
4. Vitamin-mineral tonic— single large bottle	20.00
5. Cough syrup—single bottle	8.00
	<hr/> 74.50

The doctor's initial fee will vary, but he will also take a daily fee for injecting streptomycin. If he is a good dramatist and psychologist, and the family is obviously prepared to pay, he may set up an intravenous drip and charge heavily.

Quite often, the person does not have enough cash to buy some of the medicines. Typically, the tonics and non-TB medicines will be bought and the anti-TB medicines will be partially or totally dropped from the list. (A survey done by Veena Shatrughna has shown that many doctors write the tonics and less necessary medicines first, perhaps to oblige the drug companies, and the specific curative medicine last.)

How long is this to go on? We have found that a doctor tells the patient initially that his treatment may take a varying period between two weeks to three months. He may decide to further prepare a mental frame by stating that the man is lucky that the doctor has caught the "disease" at this stage because, although he doesn't have TB yet, "There is a chance of it turning into TB!"

Even if a man has collected enough funds for the initial treatment, he may not be able to follow up. After a varying number of visits to the doctor, and especially after a marked improvement, he stops going—he may go back to work. Meanwhile, he also consults a gunia of his community about warding off risks of getting TB,



7. Vithoba : "Oh yes, last year my brother stayed with us for several months. He was always coughing. He also had a lot of sputum. Just last month my brother died. We went to his village for his funeral."
- Doctor : "Yes it is quite possible that you caught tuberculosis from your brother. But don't worry now."
- Vithoba : "But my brother died of this disease."
- Doctor : "I am giving you all the medicines. You will surely get well. But it will take a long time. It is very important for you to take the treatment for full 18 months. Otherwise you may become sick again."
- Ram : "Yes but if I have to take so much medicine it will cost a lot of money."
- Doctor : "The INH tablets for treatment of tuberculosis cost three rupees for a month's treatment. Usually you can get them free from any government health centre. You will need streptomycin injections for one month. They will cost you at least one Rupee for each injection. Usually you can get them free from the government health centre."



- B. Rukmani : "Here is your medicine. You must take this everyday. I would never have thought it was true what the doctor said, that we could buy INH tablets for whole month for three rupees."
- Vithoba : "Well it is still expensive, Rukmani, especially when I cannot earn properly. But if I get well, then I can work again, and earn money. So it is good if I get well quickly."
- Rukmani : "Yes, doctor said that in a month or two you will feel better and be able to work a little. Then our worries will be less."



and after certain divination the gunia advises him to carry out certain rituals and sacrifice, which are usually done.

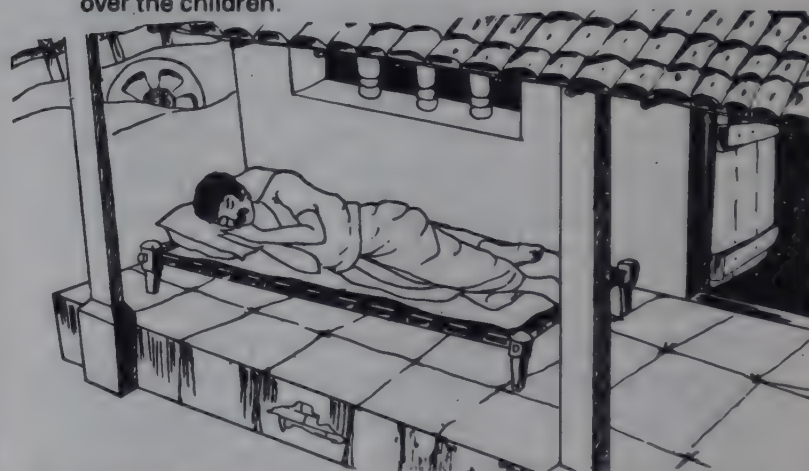
After some time, he again loses weight and his cough worsens. He thinks about returning to the doctor. The doctor's mention of TB has scared him, and he is ambivalent. He may do one of three things: he may go to another private doctor or a quack, he may go to the government doctor, or he may return to the same doctor after all. If he goes to another doctor, he goes with a blank slate—he doesn't mention that he has seen another doctor, or flatly denies previous treatment. Hence, a second version of the first experience is likely to unfold.

A streak of realism may hit him. He may realise that the chance he has TB is high now, and decides to see the government doctor. At least he may get a clear answer even if he doesn't have faith in the government treatment.

The government doctor is a strange kind of super-human. He is invested with the power to treat when he pleases at the Government's expense. (He also carries out a respectable private practice in his house at the Government's expense). A patient approaches him fearfully. Diagnosis for purposes of initiating Government treatment is obtained through sputum exam or X-ray whichever is feasible. Anti-TB treatment is started on the doctor's orders. He tells the patient he has TB, or he says, "There is chance of it turning into TB" depending on the role he wishes to play in the drama with the patient—Government doctor or Private Practitioner. Sometimes he adopts a dual role, issuing Government drugs from the Primary Health



9. Vithoba did not want to spread the disease to his children. So whenever he coughed and wanted to spit, he did not spit on the ground where the children played. Instead he spat into an old clay pot in the fire and left the pot on the fire for 10 minutes to kill the germs. Then he used same pot for spitting into the next morning. He was also careful to cover his mouth with his hand when he coughed so that he did not cough over the children.



10. Vithoba did not want his children to get tuberculosis. So he slept on the verandah until his cough and sputum went away. Then the children did not have to breathe up his air when he coughed. After taking his tablets every day for two months his cough became much less, and his sputum disappeared. He felt very relieved. He went to tell the doctor.
- Vinoba : "Now I am feeling much better, and my cough is much less."
- Doctor : "That is very good. You are getting well again. But it is important to take the treatment for the full 18 months. If you stop the disease will come back again. And it will be much worse then."



The health messages in this flash card set are:

- \* TB is curable
- \* TB medicines need to be taken for 18 months
- \* Unless a TB patient is careful, the disease can spread to others.

However, aside from these health messages, the flash card set **also conveys** several other messages such as:

- \* People fall sick for some unknown reason. (If Vithoba got TB from his brother—which is technically rare—why did he get it after one year? Why didn't Rukhmani and the children get it?)
- \* People are irrational. (There seems to be no reason why Vithoba keeps putting off going to the doctor, nor do we know why he changes his mind.)
- \* Doctors are kind to villagers and spend a lot of time talking to their patients.
- \* The doctor knows best.
- \* Those who follow doctors' orders get fully cured and become healthy.
- \* In a family, the man is the most important person, then come the children, while the wife's health seems to be of no importance (Vithoba and the doctor are concerned about the children and get them examined. No one mentions the possibility of Rukhmani having TB.)
- \* In a family, the wife is most concerned about health problems. (It is Rukhmani who tells her husband to go to the doctor and later makes sure he takes his medicines regularly.)
- \* Women are more superstitious (Vithoba



11. The doctor did not want the children to get tuberculosis. So the doctor asked Rukhmani to bring the children for a check up. He found that Krishna and Shoba were both healthy. He gave them both an injection of BCG. This injection is given on the shoulder, and it helps to protect the child from tuberculosis. The injection does not cause fever.



12. Vithoba had not been working for the past two months. He was worried.
- Vithoba : "For these past two months I have not been earning any money."
- Rukhmani : "Yes, there is very little money left. And we only have grain enough to last for another month."
- Vithoba : "The doctor advised me that we should consider family planning, so we do not have another child. Another child in the family would be one more to feed."
- Rukhmani : "And think how healthy Krishna and Shoba are. And they are both doing so well at school."
- Vithoba : "So I shall ask the doctor about it when I go next week."



had feared that he had TB but Rukhmani believed it was their fate,)

In giving education about TB, the health messages also **conceal** several aspects such as:

- \* The relationship between poverty and TB.
- \* The extent to which TB is dreaded.
- \* The likelihood that the person will first go to a local healer.
- \* The likelihood of his asking for tonics or injections and the doctor's response to this request.
- \* The effect the disease has on the family's economic status.
- \* All the problems related to taking treatment for 18 months.

If we compare the flash card set with the reality as recounted by a health worker in a village, Vithoba's story comes across almost like a fairy tale. And like any fairy tale, this story also has a moral. In this case Vithoba is wise because he followed doctor's orders completely, took his medicines for 18 months, slept on the verandah so that his children did not breathe air full of TB germs, he spat into a clay pot so that germs did not spread and he also decided to go in for family planning.

In other words, anybody who does not do all these things is not wise i.e., he is a fool, and if he does not get well, it is his own fault. Considering that most poor people in rural areas and slums (the very people for whom health education is meant) would be unable to follow all the above orders, the natural conclusion is that all poor people are unwise, and that it is their own fault if they are unhealthy!



13. After a few months of treatment for tuberculosis Vithoba is back to work. He feels much stronger. He is not so thin. Now he is enjoying his food again. He has gained several kilos weight. Rukhmani makes sure that he takes his tablets regularly. She does not want this disease to come back again. She wants Vithoba to take the tablets for 18 months as the doctor said.



14. Eighteen months go by. Vithoba visits the doctor for a final check up.

Doctor : "Oh how are you, Vithoba. How are you feeling now?"  
 Vithoba : "I am feeling very well, thank you doctor."  
 Doctor : "You certainly look well. I am glad that you have recovered. Have you any cough or sputum?"  
 Vithoba : "No. And now I can work all day without getting tired, I am completely well again."



15. Vithoba is glad. The children are well and did not tuberculosis. The doctor had given them good advice. Vithoba knew he was alive and well only because he took the treatment for the full 18 months. The tuberculosis is cured. The tuberculosis will not come back. The whole family is happy and healthy again.





This attitude of blaming the victim is further strengthened by creating the myth that everyone has equal chances of falling sick, and therefore if some people become sick while the rest are healthy, the sick persons must have through their own fault, brought on their illness. For instance in answer to the question, who gets TB, one health message says:

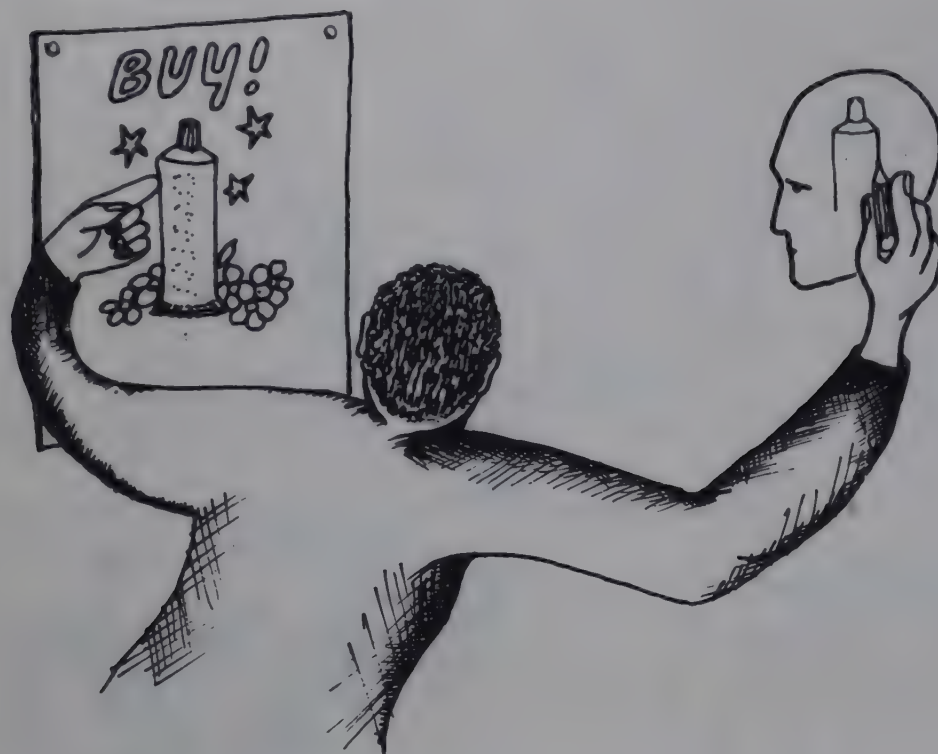
Anybody can get TB.  
 Rich people and poor people can get TB.  
 Young children and old can get TB.  
 People in villages and people in cities  
 can get TB.  
 Good and bad people can get TB.  
 Men, women and children can get TB.

According to such health messages there is absolutely no relationship between poverty and illhealth.

Blaming the victim is seen in all health messages irrespective of whether the health message is on nutrition, water and sanitation, mother and child health or family planning. Given the sharp contrast between health messages and the reality of people's lives, it is no wonder that most people do not implement health messages (see chapter 5 of section I). All the same continuous attempts are made to make health messages more interesting and more 'acceptable' by using newer communication aids.

In fact health education is beginning to resemble more and more the aggressive marketing practices adopted to sell consumer products, as can be seen from the following comparison. *Consumer products include all items commonly purchased by people such as soap, toothpaste, clothes, shoes, radios etc.*





## A comparison between advertising & health education

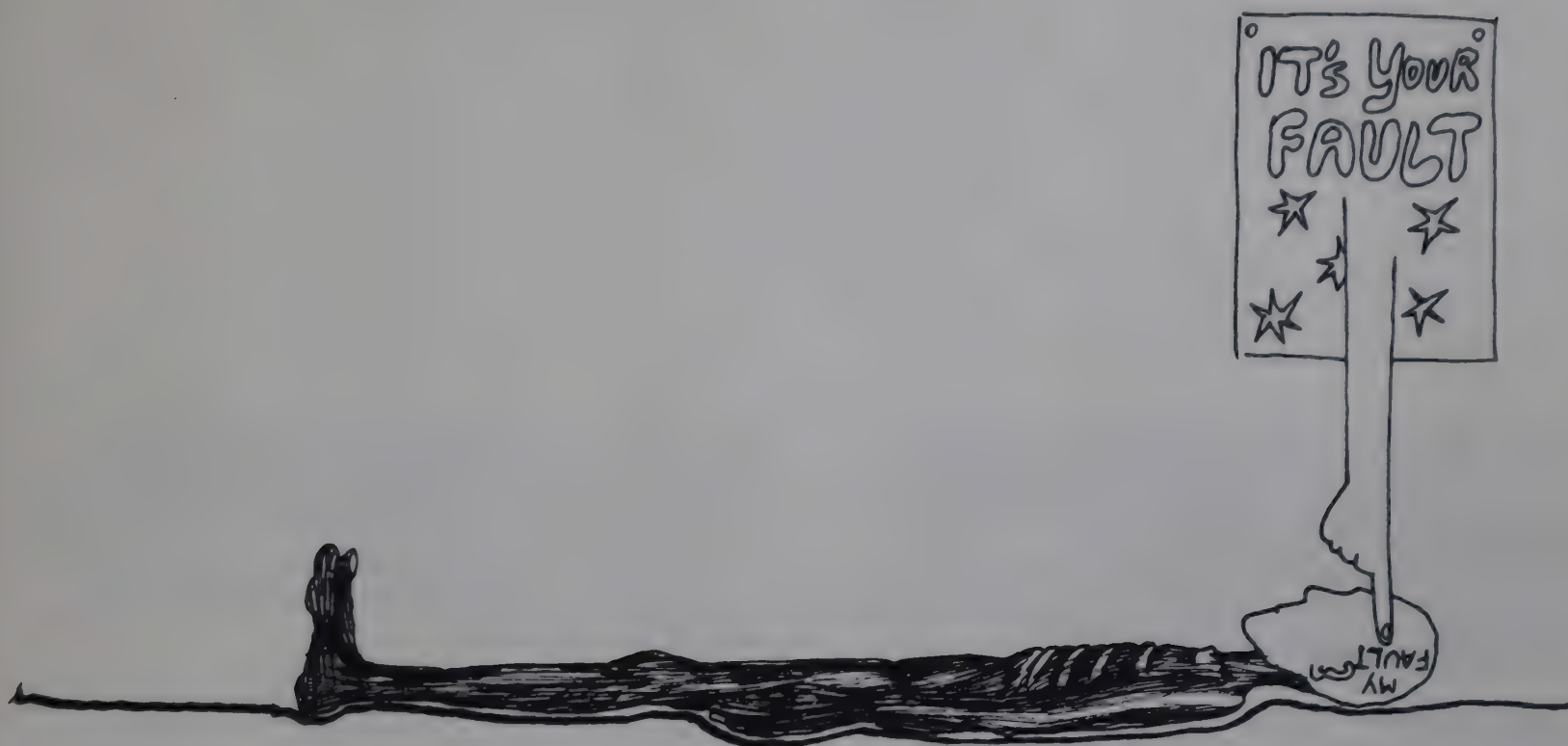
### Advertising

- (1) Advertising sells images, dreams, and fantasies. It tells people what to think and how to feel.
- (2) "Whereas in affluent societies advertising is largely a matter of causing individuals to shift from one brand to another (say, of cigarettes), in a developing country advertising simply arouses desire for objects which were thus far considered unnecessary or were perhaps unknown."  
(Roberge)
- (3) "There are two main means by which marketing may impose. The first is by sheer volume and insistence: the message may be so relentless, so one-sided, as to preclude any real element of understanding anything beyond what is said."  
(Medawar)

### Health education

- (1) Health education sells dreams of a healthy life. It falsely promises health to people who may not be able to achieve it.
- (2) "Very often, there are groups who may have health needs of which they are not aware. This is especially true in India where about 70% of the people are illiterate. The health educator will have to bring about a recognition of the needs before he proceeds to tackle them."  
(Park & Park)
- (3) "Few people can learn all that is new in a single period. Repetition at intervals is extremely useful. It assists comprehension and understanding. Every health campaign needs reinforcement; we may call it a 'booster dose' ...."  
(Park & Park)





- (4) "Secondly, marketing may involve undue and sometimes distinctly unfair-emphasis of the human motivation in buying, rather than on the qualities of a product that are really worth selling. Straightforward appeals to the status, vanity, greed or insecurity of the potential buyer are familiar enough...."

(Medawar)

- (5) In the end the consumer may be imposed upon to an extent which may seriously limit his understanding and freedom to understand the real nature and value of whatever is offered for sale.

(Medawar)

- (6) A successful marketing man is one who can sell fridges to eskimoes.

- (4) "To tell a lady, faced with the problem of overweight, to reduce her weight because she might develop cardio-vascular disease or it might reduce her life span, may have little effect; but to tell her that by reducing her weight she might look more presentable and beautiful, she might accept health advice . . . in health education, we make use of motivation."

(Park & Park)

Fear is another emotion frequently played upon in health education.

- (5) "...health education is concerned with establishing or inducing changes in personal and group attitudes and behaviour that promote healthier living."

(Park & Park)

- (6) A successful health worker is one who can convince people that their illhealth is their own fault? 189



Both health education and advertising set out to give certain information which people may not have. But because the aim is also to make people act in a certain way (to buy some product through advertising; to adopt health practices suggested through health education), very often unfair means are used.

As we have seen, these can range from giving only selective information to taking advantage of a person's emotions. The result is that people are unable to critically examine the information provided and make a rational choice. Thus, health education, like advertising, encourages people to uncritically develop certain attitudes and beliefs.

Health education basically persuades people to develop an unquestioning faith in doctors and the modern health care system. If previously people believed disease was due to fate which struck them for some fault of their own, they are now encouraged to believe that disease is due to germs which also affect them because of their own fault. If previously they were expected to have unquestioning faith in the local healer, they are now encouraged to unquestioningly obey the doctor.

Seen this way, health education seems no different from an advertisement which manipulates people to buy a particular product, even if there are other products which may be more suitable or more economical for the buyer.

However, while it is obvious that in advertising it is the manufacturer who gains by manipulating people it may seem a little far-fetched to apply the same logic to health education. It could be argued that even if health education encourages certain attitudes and beliefs, there is nothing wrong since it is the people who will

benefit from health education and that the health educator has no motive other than helping people to lead healthier lives. But we will go on to show that this is only partly true because health education like other health activities, ultimately benefits the powerful sections of the population.

### **What is the motive in influencing people's behaviour through health education and who really benefits?**

The need to influence people's behaviour with regard to health emerged out of the public health consciousness during the eighteenth and nineteenth century in Europe. This was the time when cholera epidemics were frequent and affected the rich and poor alike. The epidemic itself was due to overcrowding and the unsanitary living conditions of the poor who were badly exploited and forced to live in the slums. The cholera epidemics brought home the point that the slums could no longer be ignored as mere eyesores. The germ theory of disease, which was just being popularised, added reason for concern because it explained that disease could be spread to others in the vicinity, through germs.

This was the time when Public Health was conceived of as health laws which were to be enforced by the police. The government was to be responsible for the health of the people by formulating these laws and making sure that they were enforced. Those who broke these laws were punished and punishment ranged from paying fines to imprisonment. Later, the function of the police in enforcing health laws was taken over by the health authorities.



## **Model Mosquito Ordinance**

### **United States Public Health Service**

#### **Section 1**

It shall be unlawful for any person to have, keep, maintain, cause or permit within the corporate limits of..... any collection of standing or flowing water in which mosquitoes breed or are likely to breed, unless such collection of water is treated so as effectually to prevent such breeding.

#### **Section 6**

For the purpose of this ordinance the person responsible for the condition of any premises is the person using or occupying the same....

#### **Section 8**

Any person found guilty of a violation of this ordinance, as described in Section 5 hereof, shall be punished by a fine of not less than one dollar and not more than 25 dollars.

Source: *Report of the Health Survey and Development Committee*, Vol. III, 1946

*This Ordinance was given by the Bhore Committee as an example on the basis of which the Indian government could formulate its own public health laws.*

The real motive behind these health laws becomes clear if we look at the public health movement in America which followed the same pattern as in Europe.

In America too, the living and working conditions of the poor were very bad. "Tenements which sometimes provided a single privy for dozens of families, were fertile breeding places for typhoid, yellow fever, TB, cholera and diphtheria." (Ehrenreich and English)

Sickness, exhaustion and injury were routine in the life of the working class. Contagious diseases always hit the homes of the poor first and hardest. This was in sharp contrast to the wealthier sections of the population who lived in luxury and had the latest sanitary facilities in their homes.

The rich were not really interested in the health of the poor and believed that the poor were unhealthy because of their own sins. The doctors of the time, who came from the upper class also had no time for the poor as they were busy attending to the well-off patients who could pay for their services.

The rich were however very concerned about the effect the poor had on the health of the cities. The germ theory of disease created the fear that disease could spread from the poor to the rich. This fear was heightened by the fact that many poor women worked in the houses of the rich as domestic servants. In order to protect themselves, the police was therefore used to hunt those suspected of spreading disease as is shown by the case of 'Typhoid Mary' (See Box).

The wave of fear created by the germ theory of disease later led to a series of public health reforms which included sanitation facilities, clean water and better



housing. Though these reforms helped both the rich and the poor, the interests of the rich in bringing about these reforms were very clear. In the words of Mrs. Plunkett, the household hygiene expert:

“Through the agency of **enlightened selfishness**....the upper 10,000 are learning that their sanitary welfare is indissolubly connected to that of the lower 10 millions, and it is this perception of this truth that has caused the ‘wave of emotional interest’ in the condition of the poorer classes....” (Ehrenreich & English)

Thus even though a lot of money was spent in improving the water and sanitation facilities in the cities, and the living conditions of slum dwellers, all these measures were adopted only when the rich realized that their own health could be affected by the living conditions of the poor. So the real motive was the self-interest of the rich and it was they who benefitted the most. (See chapter 2 of section II). These same reasons applied in later years also, though the methods used to influence behaviour were different.

### **The government becomes responsible for health**

In the beginning of the twentieth century, with the emergence of concepts such as democracy, obvious forms of control seemed to be against the values of individual freedom. So police control was replaced by the service approach. The government was expected to provide basic water and sanitation facilities and also undertake measures such as immunization to prevent spread of disease.

Money spent on these health measures was considered an investment because illhealth affected productivity and therefore reduced the national income.

It was therefore in the interest of the government to provide services to bring down the incidence of disease and to induce people to make use of these services.

In India too a similar strategy was followed after Independence. The new government wanted to create the impression that it was interested in the health of the population, so health institutions providing free services were set up all over the country. The Indian government also took up the responsibility of controlling communicable diseases such as malaria, so that agriculture could be extended.

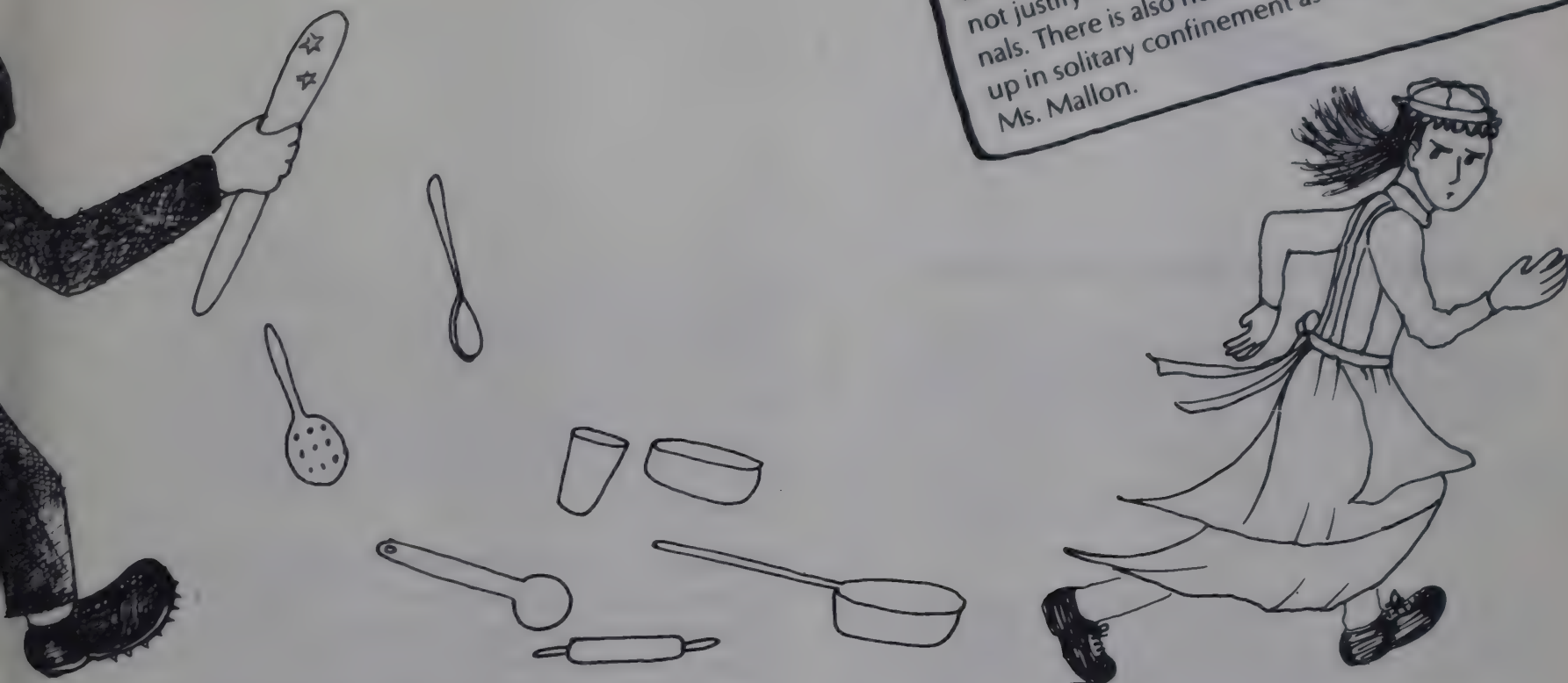
In addition the government provided services such as immunization free of cost. However, as we have seen earlier, the government gave priority to the control of those diseases which were of direct economic interest (e.g. cholera, smallpox, malaria). The government also focused attention on providing services primarily to those sections of the population whose health was considered more important for the national economy. So in India too, it was in the economic interest of the government to provide services and to encourage people to use these services. (see chapter 2 of section II)

### **The individual is responsible for health**

In Europe and America, the public health reforms together with the better standard of living of everybody led to the sharp decline in deaths which were mainly due to infectious diseases. However, newer diseases such as cancer and heart disease became the major public health problem. Overeating, stress, smoking



A 'carrier' of disease is someone who does not suffer from the disease herself/himself but can spread the disease to others. While it is important from the medical point of view to trace and treat such persons, it does not justify the hunting down of such people like criminals. There is also no need for such people to be locked up in solitary confinement as was done in the case of Ms. Mallon.



## The Case of 'Typhoid Mary'

Mary Mallon was an Irish-American cook who worked the silk-stocking districts— Oyster Bay, Park Avenue, Sands Point, Dark harbour, Maine. Her references were good, her employers liked her cooking and were frequently impressed by her steadfastness in the face of family disaster, which seemed to be a routine feature of Ms. Mallon's working life.

When she was finally locked up in 1915, she had left a trail of fifty-two typhoid cases, three of them fatal, in the homes of her employers. Her employers had always tended to blame some other servant in their houses for the typhoid outbreaks, until the relentless detective work of the New York City Health Department exposed Ms. Mallon as the culprit. The lab tests proved it: She was a typhoid germ carrier who did not herself suffer from the disease. She was first apprehended in 1907 and placed in solitary quarantine on a tiny island in the East River, then after three years released on parole on the condition that she give up cooking. In 1913 she broke parole and vanished, only to turn up two years later— cooking again—in a Queens hospital struck by typhoid.

Ms. Mallon always insisted that she had never had typhoid fever, was not a typhoid carrier and was the innocent scapegoat of publicity hungry health officials. When the health officials came to get her in 1907, she first resisted with a carving fork, then escaped through a back window and barricaded herself with barrels. She was whisked off by car to the Public Health Laboratory with eminent public health authority Dr. Josephine Baker sitting on her chest to subdue her. Her final capture in 1915 was, according to the New York Times, "nearly as lively as her first one", featuring another chase through windows and backyards. (Ehrenreich & English)



and lack of exercise were identified as the main reasons for these diseases.

This is when the emphasis shifted from state responsibility for health to individual responsibility for health.



**I am expensive to the U.K. National Health Service**  
The state will care for my family after my premature death.

**My cost to the Health Service is small**

Medical and curative care can be delivered by the U.K. National Health Service, but health care cannot. Health is ultimately a product of attitudes of mind, life styles of personal and community hygiene, a balanced diet and physical harmony derived from all of these. This is true in industrial as well as developing countries.

The government spent money now on educating people on the dangers of smoking, overeating etc. and attempted to make people feel guilty by pointing out how their bad habits were proving an expense to the national health service (see box). Such health education gave the impression that the government had done its duty and the rest was upto the individuals themselves.

However, in reality, the interests of the government were very different. For instance, the connection between smoking and diseases such as chronic bronchitis, cancer of the lung and heart disease has been known for more than 20 years. Yet governments in Western countries have not banned either the advertising or the sale of cigarettes.

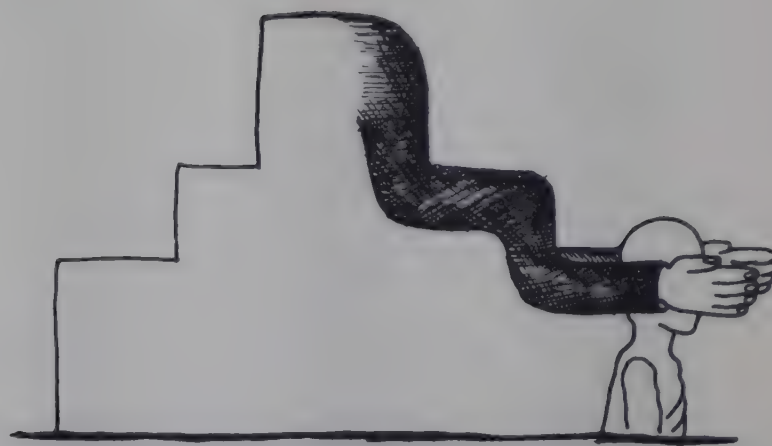
A recent study has shown that the British **government earns** over 4000 million pounds every year from the sale of cigarettes alone. (1 pound = approximately 18 rupees).

**The cost of providing health care** for cigarette-related disease is estimated to be 165 million pounds per year, an amount which seems small in comparison.

As can be expected, the government is not really interested in stopping people from smoking. All the same it spends 2 million pounds a year on **health education** warning people on the dangers of smoking while the **cigarette manufacturers** spent over 41 million pounds in 1966 on advertisements that encouraged people to smoke.

In India too, the focus in Public Health shifted from government responsibility to individual responsibility but for different reasons. As the cost of providing health facilities increased, it started becoming ap-





parent that the government would not be able to meet the health needs of everybody.

This was the time when emphasis was put on individual responsibility. The accepted theory now was that health problems could not be solved by spending money alone. The poor were ignorant, illiterate and backward and because of this refused to follow health advice or make use of health facilities even when provided. The service approach therefore gave way to the educational approach and health education was seen as the most important way of preventing disease.

At first glance it may seem that there is nothing wrong in educating people about practices which lead to a healthy life. It may also seem reasonable to direct health education at the poor since they fall sick more often. Common observation also confirms that, compared to the rich, the poor do live in surroundings that are more unhygienic.

However, it is only when we consider why the poor live the way they do that the real motive behind these efforts becomes clear.

The fact is that the poor are forced to lead unhealthy lives because of their poverty, which itself is a result of the exploitative practices in society. It is this connection between exploitation and disease which health education today effectively conceals. Uncritical acceptance of health messages conveniently removes the responsibility for illhealth from those who exploit and instead places the responsibility on the very people who are the victims of exploitation.

Thus, on the surface it may seem that health education is merely a method by which useful information is provided to a population which does not have the oppor-

tunity of acquiring this information otherwise. It may also appear that health education is carried out in the interests of the people who are more likely to fall sick (such as the poor in slums and rural areas) with the sole aim of preventing them from falling sick. However, in reality health education is really a means of control, just like the health laws of the past.

As we have seen, health education emerged from the earlier health laws which were enforced by the police. These health laws were created basically out of the self interest of the richer sections of the population who wanted to protect themselves against diseases which the poor were spreading. These health laws also served the purpose of diverting attention from the exploitative conditions in society which created the necessary conditions for disease to occur. Similarly health education is just a newer method of controlling people's behaviour and of diverting attention from the real causes of illhealth.

Since health education does not use obvious methods of control such as physical force or imprisonment, it may be hard to perceive health education as a means of controlling people. In fact, it is a far more powerful way of control because control is exercised without people being aware of this fact.

Through a process of continuous persuasion, people are encouraged to adopt attitudes and beliefs which create an acceptance of the conditions in society and further create the impression that these conditions are the result of people's own behaviour. Over a period of time people come to accept these myths unquestioningly and passively accept illhealth as an inevitable part of their lives.



## 7 : Family Planning



The Family Planning Programme (FPP) is probably the most widely known programme of the government especially in rural areas. Considering that people in rural areas have very poor access to all health facilities, the FPP stands out as the only programme in which health personnel actually contact the target population they are supposed to cover. This is one programme which has never been allowed to suffer because of lack of funds or personnel. In fact, great emphasis has been placed on achieving results and health personnel are rewarded for successfully promoting family planning and punished if they are unable to do so.

In spite of all these efforts, the FPP has not been very popular among a majority of the people. But the government continues to adopt various strategies in order to control birth rates. These strategies range from changing the name of the programme (the FPP is now known as the Family Welfare Programme) to giving cash incentives to family planning acceptors.

At the national level, it may appear that the intention of the government is to reduce population so that everyone can have the chance of a better life. In fact, a programme such as the Family Planning Programme becomes necessary only when the economic policies of the government itself are such that people appear to be too many. It is in this context that 'over-population' becomes a strategy to explain the problems created by the policies of the government. This becomes clear when we consider the conditions in which over-population came to be seen as the major cause of poverty.

At the individual level it is believed that the FPP can help to improve the health of women by reducing the morbidity and mortality associated with frequent and

too many pregnancies. While this may be true in theory, it does not really work out in practice.

### Conditions in which overpopulation is used to explain poverty

The first person to explain poverty as a result of over-population was Thomas Malthus, an Englishman. Writing in 1798, Malthus attempted to explain why the large number of people who existed in the cities of England during his time were also ill-fed, ill-clothed and lived in miserable conditions of poverty.

According to him, people were poor because they were too many. Population was increasing faster than the food to keep the population alive. The result was that there came a time when there were more mouths to feed than there was food to feed them. Malthus therefore advocated 'moral restraint' among the poor to check population growth. Nobody could help the poor in their misery since they were themselves to blame for breeding so fast. If they did not marry so early and practiced 'moral restraint' they could hope to help themselves.

In reality, in England at that time, people from rural areas were flocking to the cities in search of work. This was because from the sixteenth century, right upto the early part of the nineteenth century, peasants were being deprived systematically of their land.

In the sixteenth century, when the price of wool, which was England's chief export, began going up, many landlords decided to convert their farm land to sheep pastures. More and more landlords therefore enclosed their land (put fences around their land) for the purpose of raising sheep. But sheep raising did not require so many labourers. So a large number of far-



mers lost their means of earning a living since they now had no land to grow crops.

Tenants were either forcibly thrown out of the land or the rents were raised to such an extent that the tenants could not make a living from the land. Thus, a large number of people from rural areas were either forced to starve to death, or were forced into beggary and stealing.

The English government at this time passed laws to prevent enclosures on land because of a fear of peasant revolts. Wandering groups of beggars had become a real danger, since there had been burnings and pulling down of enclosures put up by the landlords which had all been dealt with severely. But the laws were disregarded by the powerful landlords and the enclosure movement continued.

In the eighteenth century, however, the government made enclosures legal and passed the Acts of Enclosure by which the labourers were forced off the land legally. In the eighteenth century therefore more and more people flocked to cities in search of work, adding to the numbers which had already been migrating since the sixteenth century.

This created a very large number of labourers in the cities who were now forced to work in factories under extremely exploitative conditions (see chapter 2 of section II). The miserable poverty of these workers living in overcrowded slums was in sharp visual contrast to the wealth enjoyed by the rich.

This contrast was so great that it could not be ignored. The rich therefore needed a way to justify their wealth and feel less guilty about it. Malthus's theory that the poor had only themselves to blame for their poverty came as good news and was thus propagated by the well-off people at that time. It also influenced econo-

mists of that period, who explained that when there were too many workers, wages would be low but when workers were few their wages would rise!

However, it was really the economic conditions created by the enclosure movement and the exploitative practices adopted by factory owners which was really the cause of poverty and the appearance of 'too many poor people' in one place.

### **'Over-population' during colonial rule**

Since the time of Malthus, this seemingly simple connection between over-population and poverty, has become a handy excuse for governments unwilling to deal with social injustice and exploitation, the prime reasons for poverty. Time and again, it has been shown that people become 'surplus' not because they breed too much but because of policies followed by the powerful. Just as the enclosure movement in England led to the appearance of 'too many people' in the cities, so also people in several countries of Africa, Latin America and Asia appeared to be 'too many' under colonial rulers.

In India too, a similar situation took place during British rule which led to increasing levels of unemployment and poverty and gave the impression of 'too many people'. Farmers were induced to grow commercial crops such as groundnuts, sugarcane, cotton and jute which were exported to England as raw materials for British industries. Overall food production was thus reduced and farmers in several areas had to purchase food from the markets for consumption.

Second, fierce competition from British machine-made goods especially textiles resulted in the destruction of Indian handicrafts. Thousands of artisans and weavers lost their means of livelihood and could now only work as landless labourers in agriculture.



Third, the British introduced a system of land taxation which created conditions of extreme poverty in rural areas. By placing high taxes on land and making a group of landlords completely responsible for collecting this tax, the British government forced farmers into a situation where they had to borrow from moneylenders at high interest rates, to pay off the taxes. Unable to pay back these loans, farmers were forced to give up some or all of their land. Land thus began to be concentrated in the hands of a few people and more and more farmers became landless labourers in the process.

A large number of people were therefore no longer able to produce food for themselves or purchase it from the market. This resulted in a series of famines in India. For instance, between 1800 and 1850 about twenty-five lakhs of people were reported to have perished in seven famines while between 1850 and 1900 another two hundred lakhs of people died in twenty-four famines which followed one after the other. This was also the time when the British greatly increased the export of foodgrains from India.

Though the economic policies followed by the British were responsible for the famines and widespread poverty in India, over-population was used by British economists to explain the situation. For example, Vera Anstey, in her book **India's Economic Development** wrote, "Where is the Indian Malthus? Who will raise a voice against the flood of Indian children?" Strangely enough, at the time when the British were trying to explain India's poverty by the over-population theory, the British population itself was increasing much more rapidly than the Indian population. Between 1870 and 1931 the Indian population grew by 30% whereas the British population increased by 77%.

Thus, the commercialization of agriculture, the destruction of Indian handicrafts and the system of land taxation were the three main reasons for unemployment, poverty and widespread famines during British rule in India. Whereas in England, peasants thrown out of agriculture were absorbed as labourers in the factories, in India, the unemployed were forced to survive in agriculture, since the factory system was just beginning to emerge at that time. Therefore the image of 'too many people' living off the land was created, an image which continued to remain even after India gained Independence in 1947.

### **'Over-population' in India today**

The policies followed by the Indian government have continuously made people appear 'surplus'. As we saw in chapter 8C of section I, the introduction of modern technology in agriculture has resulted in increasing the concentration of land in the hands of a few. This has been especially true in areas like Punjab and Tamilnadu where modern methods of agriculture were first used.

In Punjab, for example, between 1955-56 and 1967-68, land owned by big farmers increased by about 9.5%. Of these big farmers those who had 20 to 25 acres increased their farms by about 4%. On the other hand, big farmers who had 100 to 150 acres increased their farms by about 40%. It was also found that these increases in farm size took place through the buying of land.

Small farmers, unable to compete with the landlords, sold off their lands and joined the already large group of landless labourers searching for employment. Thus in the 10 year period between 1961-62 and 1971-72, the number of male agricultural labourers increased by



87.5% while the rural population in the same period increased by only 21.11% (see chapter 7 of section I).

These large numbers of unemployed landless labourers could no longer get employment on land because landlords had already switched to machines (tractors, harvestors, etc.) which could do the work of human beings. In 1970 there were 1 lakh tractors in use in India. By 1980 the number had increased to 4.73 lakhs. Labour was thus displaced in many parts of the country, especially in Punjab and Tamilnadu, by the use of agricultural machinery.

Instead of trying to make agriculture labour intensive and productively employing additional labour as Japan did (with 2 workers per hectare i.e. 2.5 acres, the value of production per acre in Japan is 10 times that of India), the Indian government chose to encourage agricultural mechanization which has systematically deprived people of their lands and means of livelihood.

It was thought that this surplus labour could easily get employment in industry. Rapid industrial growth was in fact advocated to absorb the surplus labour from rural areas. The growth of small and cottage industries was also emphasized to provide more employment. In reality, none of this happened.

Industry has failed completely to absorb the 'surplus' labour. Large industrial and business houses are able to get licences, money and raw materials from the government to put up huge factories. Machinery has been introduced on a mass scale in these industries in the name of efficiency and productivity. Employment opportunity in industry is therefore limited. Not only is employment generation low, but often due to the changes in the demand for machine-made goods or because of the introduction of new machinery itself, labour is 'retrenched' or thrown out of jobs by industry.

The fact that 'surplus' labour has not been absorbed, despite the rapidly growing industrial sector can be seen by the high levels of unemployment in our country. In the 15 years between 1956 and 1971 unemployment increased by 252.8% while in the same period population increased only by 35%. Thus unemployment increased approximately 7 times more than population growth (refer chapter 7 of section I).

Other economic policies adopted by the government (such as the forest policy, introduction of mechanized trawlers into fishing to increase exports etc.) has also led to the systematic destruction of the traditional means of livelihood of people and made them more impoverished.

Thus, since Independence the economic policies followed by the Indian Government have been unsuccessful in eradicating poverty. On the contrary, the percentage of the poor has actually increased over the years. This is the reason why the government uses 'over-population' as a strategy to divert attention from and to explain its failures. It can now say that while development is taking place, too many people are consuming the 'fruits' of development. Progress is slowing down because the poor are breeding in excess numbers and are burdening the country's limited resources. If there was a reduction in population it would help the country to save some resources which could then be shared among the people and help to raise the standard of living of all. To put it simply, what the government really means can be illustrated by the following example. Let us say that the government had to provide schooling facilities for 100 children and Rs. 5 per month per child was the minimum required to provide the most basic facilities. The government would therefore need to spend Rs. 500 per month on schooling alone. But suppose the number of children



was reduced to 50, the government would need to spend only Rs. 250 per month for this purpose. The government would therefore save Rs. 250 which could then be used to provide better schooling facilities for the children or used for any other activity. In this way a reduction in population could increase the standard of living of all.

At first this reasoning may seem logical. However, inherent in this reasoning are two assumptions. The first assumption is that basic facilities of life (such as food, water, clothing, housing) and welfare facilities (like schooling and health) are available to everybody in the country. Therefore a reduction in population size will ensure that at least some of the resources being spent on these facilities will be saved. The second assumption is that the resources saved by a restriction in numbers will be distributed equally to the rest of the population or invested in an activity which will benefit all so that the standard of living of everyone will improve.

As we have already shown, many times in this book, both these assumptions do not work in the present Indian context. Basic facilities and welfare services are not available to the poor. This is because the rural areas where a majority of the poor live, get very little of these facilities. Invariably it is the richer sections of the urban areas who get the maximum share of the nation's resources. Further, even the limited facilities in rural areas go to benefit the rich because of the unequal socio-economic set-up existing in the villages (refer chapter 8 of section 1). The fact is then, that the poor are already consuming so little of the country's resources that a decrease in their numbers will hardly help to increase national saving.

Even if we accept that some resources do get saved by a population reduction, it does not mean that the

standard of living of everyone will be improved. The crucial question would still remain as to whether this 'extra' saving will be distributed equally to all. In a country like India, where a few people control a major share of the wealth and have the power to make decisions, it is obvious that the 'extra' resources will not be used for the benefit of everybody and least of all for the benefit of the poor.

Thus, the government's argument that the excess numbers of the poor are responsible for absorbing a major share of the country's resources is incorrect. It is obvious that a decrease in the number of poor people is not going to increase national savings significantly. Why then should the government enforce the FPP among the poor so consistently? It would be more logical for the government to ignore the problem rather than spend the same 'limited' resources in controlling their population. It does seem strange that a government which has not shown in any way that it is accountable to the poor feels compelled to explain its failure to deal with the problem of poverty.

This is because the sheer physical numbers of people living in extreme poverty, hunger and disease instills in the government and the wealthier sections of the population, a deep sense of fear. History is full of examples to show that vast hordes of poor people can be driven by their hunger and deprivation to extreme forms of violence (as happened in France, England, U.S.A. etc.). This is the fear that J.R.D. Tata, a well-known industrialist from one of the wealthiest business families in India, expressed when he stated that unless population growth is contained "there could be chaos and even revolution". This same fear has been pinpointed clearly by Mahmood Mamdani while commenting on an extract from Paul Ehrlich's book **Population Bomb**. In his book, Ehrlich describes how the





significance of the 'population problem' dawned on him suddenly "one stinking hot night in Delhi". He writes,

As we crawled through the city (in a taxi), we entered a crowded slum area. The temperature was well over 100, and the air was a haze of dust and smoke. The streets seemed alive with people. People eating, people washing, people sleeping. People visiting, arguing and screaming. People thrusting their hands through the taxi window, begging. People defecating and urinating. People clinging to buses. People herding animals. People, people, people. As we moved slowly through the mob, hand horn squawking, the dust, noise, heat, and cooking fires gave the scene a hellish aspect. Would we ever get to our hotel? All three of us were, frankly, frightened . . . since that night I've known the feel of over-population.

Mamdani's comments on the above passage are as follows :

The fact is that a hot summer night on Broadway in New York or Picadilly Circus in London would put Ehrlich in the midst of a far larger crowd. Yet such an experience would not spur him to comment with grave concern about 'over-population'. On the other hand, with a little more concern and a little less fear he would have realized

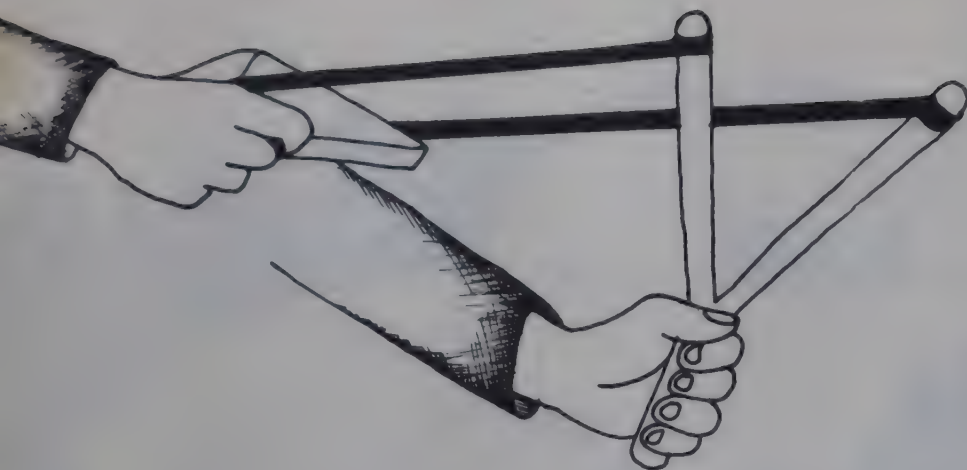
that what disturbed him about the crowd in Delhi was not its numbers, but its 'quality' — that is, its poverty.

The above quotation sums up the fear experienced by the rich when faced with large numbers of obviously deprived people. It is this fear that prompts the government to concentrate on population control at all costs and to lay the blame on the poor for their own poverty.

To sum up, the history of the last three centuries the world over has shown that people are not born 'surplus'. On the contrary, they are made 'surplus' because of the policies followed by governments which also lead to increasing levels of unemployment and poverty. The poverty of the Indian people is also related to the economic policies of the government and not due to overpopulation. It is in this context that population control becomes an important strategy of the government.

The Indian government is well aware of the extent of poverty within the country. But instead of focusing on the root causes of poverty, it is using the economic vulnerability of the people by providing them monetary incentives to adopt family planning. The fact that even these monetary incentives have not significantly helped the government to achieve its targets, shows that the basic problems of poverty, social injustice and illhealth cannot be bypassed.





## Does the family planning programme help improve the health status of women in India?

Health workers may feel that even if population control as a policy is oppressive, contraception as a method can help in improving the health of women. It has also been argued that contraceptive methods make it possible for a woman to control her reproductive functions so that she need not confine herself to the role of a mother. In fact, in 1975, the world conference of the International Women's Year declared that it is "the right of women to decide freely and responsibly on the means and spacing of their children and to have access to the information and means to enable them to exercise that right" (Park & Park). Both the above objectives could be achieved if women had access to accurate information regarding contraceptive methods and had the necessary freedom to make the choices. However, as we will go on to see, a majority of the women do not have both these prerequisites.

### Do women have access to accurate information?

For a woman to make a choice, it is essential that she has information on the effectiveness and safety of all the contraceptive methods available. For every contraceptive method there are two kinds of effectiveness: theoretical-effectiveness and use-effectiveness. The **theoretical-effectiveness** is the effectiveness obtained when a method is used perfectly and exactly according to instructions. **Use-effectiveness** on the other hand takes into account all users of the method i.e. those who use the method perfectly and those who are careless.

For instance, if 100 women use the pill perfectly and exactly according to instructions, the theoretical effectiveness is 99.66. In other words, out of these 100 women only 0.34 women will get pregnant. However, if the effectiveness of the pill is calculated according to 100 actual users of the pill, the use effectiveness is 90-96. In other words, out of 100 average women using the pill 4 to 10 of them are likely to get pregnant.

Effectiveness is thus, a measure of the number of pregnancies that can be prevented among 100 average women in one year while using a specific method of contraception. The following table gives theoretical-effectiveness and use-effectiveness of some of the commonly used contraceptive methods.

**Approximate Number of Pregnancies during the First year of use per 100 Non-sterile women**

Method	Used correctly and consistently	Average experience
Tubal ligation (female sterilization)	0.04	0.04
Vasectomy (male sterilization)	0.15	0.15
Oral contraceptive (pill)	0.34	4-10
Condom + Spermicidal Agent (foam)	less than 1.0	5
Intra-uterine contraceptive device (IUD or IUCD)	1-3	5
Condom (Nirodh)	3	10
Diaphragm (with spermicide)	3	17

Source : **Contraceptive technology**, 1976-1977.





Thus, if condom is used along with spermicide consistently and correctly it is theoretically more effective than IUCD. Similarly, the use-effectiveness of oral contraceptive, condom with spermicide and IUCD are more or less the same. In fact the use-effectiveness of oral contraceptive may be lower than this because about 50-60 per cent women discontinue it in the first year of use. However, in promoting family planning, accurate information is not given regarding the usefulness and safety of these methods.

In a study conducted in the U.S.A., a group of doctors, nurses, medical students and family planning staff members were asked what they would tell a patient who asks the following question, "How effective are oral contraceptives, intra-uterine contraceptive device (IUCD), diaphragms, condoms and foam preparations?"

Respondents of this study gave theoretical effectiveness or even higher rates for pills and IUCD and gave use-effectiveness rates for diaphragms, and foams. The study concluded that family planners are biasing their responses extensively in favour of pills and IUCDs. In spite of the safety of condoms, diaphragms and foam, these methods are not promoted adequately within many family planning clinics and offices.

The Indian government to begin with offers women mainly three methods of contraception, i.e., the IUCD, oral contraceptives and sterilization. Methods such as diaphragm and natural birth control are not promoted adequately. Even in the three methods that are offered, accurate information is not provided to the women.

For instance, IUCD was introduced in India in 1965 when scientific journals were already beginning to publish adverse effects associated with its use. All the same, IUCD is promoted as effective, safe and reversible, and therefore recommended as a temporary

measure for spacing children. The only complication arising out of using this method that is given recognition is perforation of the uterus.

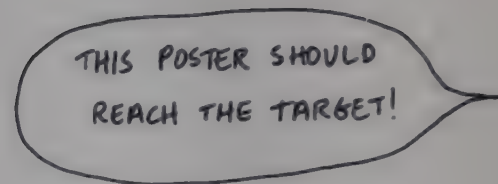
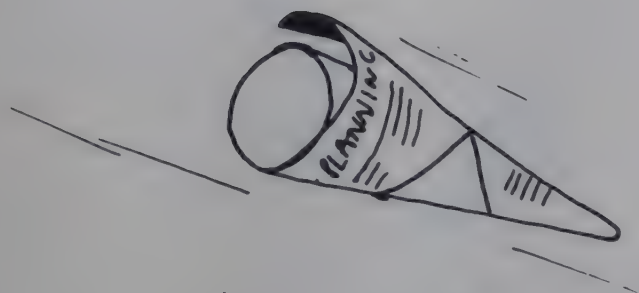
However, there are other complications which are generally not mentioned. Pelvic inflammatory disease occurs 50% more often in IUCD users than in women using no contraception. The risk is greatest for women who are exposed to sexually transmitted disease. What is more important is that pelvic inflammatory disease can cause infertility by permanently blocking the fallopian tubes.

If pregnancy occurs (which it does in 5 out of 100 women users per year), the dangers of infection and spontaneous abortions are increased. Spontaneous abortion occurs three times more often in women with an IUCD in place. Bleeding is another common complication with IUCD. The blood loss ranges from 50% to 100% increase during the menstrual cycles. The serious problem that may result from increased blood loss is iron deficiency anaemia. In India this assumes a greater significance as more than 50% of women in this age group (15-44 years) are already anaemic. Thus because of the complications of infertility and bleeding it is really strange that IUCDs are recommended as temporary methods and considered 'safe' in the Indian context.

Similarly, the oral contraceptive is another method that is being propagated as a safe method. Recently there has been a great interest generated among policy makers for the oral pill. This has resulted in the formulation of a new way of promoting this contraceptive.

The community health volunteers (CHV's,) are to supply the rural women oral contraceptives after a minimal history taking and examination. There are approximately 26 contra-indications associated with oral con-





traceptives. It means that there are 26 kinds of illnesses in which the use of oral contraceptives will aggravate the disease.

In about 40 per cent of pill-users there are side effects of one kind or the other. These range from nausea to high blood pressure. The pill-users can also develop gall bladder disease, blood clots in the lungs, heart attacks, and stroke, all of which can be fatal. Further, if oral contraceptives are taken during the early months of pregnancy (as happens at times accidentally) it can lead to the birth of a deformed baby.

In rural areas, in the absence of supervision and back up medical services, it is once again strange that oral contraceptives are being promoted as safe methods. It is also important to look at some of the promotional strategies which are aimed at providing information to women.

We have seen in the chapter on health education, that educational programmes are beginning to resemble more and more the advertising campaigns undertaken by manufacturers of commercial products. The underlying principle in such advertisements is to play upon the fears and insecurities of human beings and give only selective information which is favourable to the product.

The latest promotional campaign that is being undertaken is the 'Inundation' programme using social marketing techniques to promote oral contraceptives. In a recent Indo-US bilateral project signed in August, 1983, about 10 million US dollars (or Rs. 10 crores) have been allotted for the communications and marketing project to be implemented in the next seven years. As mentioned earlier, distribution of oral contraceptives through CHVs is part of the strategy being adopted.

To understand the problems associated with such marketing strategies we would need to look at a similar programme that was implemented in Bangladesh a few years ago, in which the pills were distributed through shops selling pan, cigarettes etc. as well as through family planning workers. This programme was funded by USAID and turned out to be expensive for both the women and the funding agency.

Instead of reducing fertility this programme ended up by increasing the fertility rate by more than 10% (a common occurrence if women miss one or more pills in the cycle). Another consequence was that many women continued to take the pill even after they had become pregnant because the pill often masked the indications of pregnancy. As the pill often produces symptoms similar to pregnancy the village women confused the symptoms of pregnancy with the effects of the pill.

Stephen Minikin in his article titled **Bangladesh : The Pop Con Game** comments that even USAID's trained family planning workers could not answer most of the basic questions.

"After 3 years of experience with the inundation programme, 44% could not say how many days after the onset of menstruation a woman should start taking the pill; 82% did not know what advice to give to a woman who missed taking the pill on five consecutive days; and more than 75% could not say what type of side effects might be anticipated by women on the pill"

The justification of USAID for this unsupervised, uninformed distribution of oral pills was that the risks of complications from the pill are less among Asian





women than among American women because they do not have the same problems of heart attacks and blood clot disease (thrombotic embolism).

This assumption is unfounded according to a recent report from the Indian Council of Medical Research which does not rule out the possibility of these complications. Further, it must also be remembered that the dose of oral contraceptive is based on body weights of American women who are far heavier than the average undernourished women of India.

In the inundation programme using social marketing techniques, the best 'brains' in marketing are going to be involved in designing and carrying out an advertisement programme. To be successful, this programme will necessarily have to give selective and biased information to women.

### **Do women have the necessary freedom to make a choice?**

We have already seen that in India women have very little decision-making power within the family. The powerlessness women experience in their lives, also prevents them from making reproductive decisions. They are not in a position to decide either the number of children that they would like to have nor the intervals at which they would like to have them.

Further, social customs demand that a woman should conceive in the first year of marriage itself. And finally, the woman's status in the home often rests on whether she is able to produce at least one surviving male child.

All these factors place a restriction on the freedom of a woman to choose contraceptive methods. She is able to exercise some measure of control only after the decision to limit family size has already been made. For

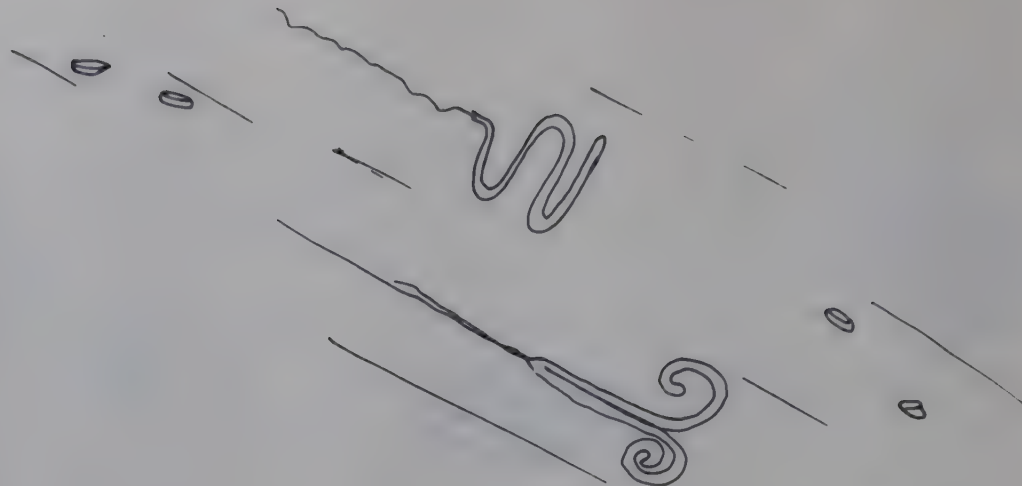
instance, even though the IUCD was promoted as a temporary method for spacing, Indian women used it as a method to limit family size. The only other way by which women exercise some control over their reproductive function is by undergoing abortions.

It is estimated that in India every year, approximately 39 lakhs of women undergo abortions. These abortions are conducted by dais and other experienced women in the secrecy of their homes and villages. Though the Indian government has legalized abortions, women continue to prefer the abortions performed outside of the established medical system because at home these can be done in secrecy.

The policy makers having realized these constraints of the Indian women are trying to overcome them by promoting a new method of contraception — the injectable contraceptive. There are two major reasons stated for promoting this method. Since it is an injection it is hoped that more women will opt for it because the use of this contraceptive method can be hidden from their husbands and mothers-in-law. Further it is also hoped that it will have better acceptance because of the widely prevalent 'injection culture'. (Due to the promotion by doctors and pharmaceutical companies a myth has been created that anything that comes in an injectable form is good.)

The real reason why the injectable contraceptive is being promoted in India is that both IUCD's and oral contraceptives have had very limited acceptance. In fact, between 1965 and March 1981 there were only 8,756,000 acceptors of IUCD's while oral contraceptives too were being used by only 100,000 women (most of them from the middle and upper class in urban areas). Thus, in spite of the great deal of publicity that was given to the population control pro-





gramme, Indian women could reject these contraceptive methods because **nobody could force it on them without their knowledge.**

The injectable contraceptive, however, is one method which can be used on the women without their knowledge. For instance, if a woman goes to a health centre for a medical problem, the woman can be given an injectable contraceptive as though it was just an injection and part of the treatment for her illness. The woman would never come to know and with the injection she could be effectively prevented from conceiving for 3 to 6 months.

This is not a far-fetched idea as can be seen from evidence available in other countries. The injectable contraceptives were used on women with psychiatric problems, women who belonged to the lower economic status, women who were from the African race and women who stayed in refugee camps.

A similar thing can happen in India if we consider the force that was used during the period of Emergency (1975-76) and the misinformation that is being given to women today. From the government's point of view, any method will do, as long as women's reproduction is controlled. In the hands of the government, an injectable contraceptive more than any other method could thus become a means towards total control over women's fertility.

## Summary

To sum up, while it is true that contraception can theoretically help in improving the health of the women, this is unlikely to happen as long as the present strategies are being used.

If the government were really interested in improving the health of the women, it could have promoted the use of safer contraceptive methods such as diaphragms and spermicides even if these were slightly less effective. The government should have also been much more concerned about informing women about the possible health problems likely to arise as a result of using these methods.

Further, care should have been taken to provide women with adequate supervision and medical facilities. As we have seen, none of this is being done. Instead, the government seems to be mainly interested in persuading women to use some method or the other without any regard for the consequences. Moreover by promoting injectable contraceptives, the government is taking away even the little freedom that women have over their reproduction, since such an injection can be given to women without their realizing it.

Lately the government has also started using the language used by the women's movement such as 'contraceptives are a woman's right' to push the message of family planning. Such a strategy further creates the impression that the government is interested in the welfare of women, whereas a closer look at the whole Family Planning Programme shows that the government is primarily interested in promoting population control at all costs.

Ultimately family planning methods can be considered a meaningful way of improving a woman's health only if they are accompanied by an overall improvement in the social status of women just as family planning at the national level becomes meaningful only when accompanied by an improvement in the overall socio-economic conditions of everybody.





But as long as the government is unwilling to face the crucial issues in our social and economic system which give rise to poverty, it will continue to use the 'threat' of an over-populated India against the poor.

It will also use this same 'threat' to legitimize state con-

In order to stress the horrors of population growth statistics like the following are often quoted by 'experts'.

India, with a population of 685 million (1981) is the second most populous country in the world. It is supporting 15% of the world's population with 2.5% of the total land area. At the current annual growth rate of population (2.4% in 1981) the population will cross the 1000 million mark before the turn of the century and will again double in about 31 years.

Such statistics can easily be countered by showing that there is no relationship between density of population and development. The density of population, i.e., the number of people per square km. in developed countries is far higher than in India, as the following statistics show :

Country	No. of people per square km. (1981)
Japan	311
West Germany	246
England	228
India	200

trol over women's reproductive behaviour. Seen from the point of view of the poor then, the failure of the FPP can be considered an effective 'resistance' by the poor against the oppressive policies of the government.

To prove this point further it can be seen from the following table that poverty has no relationship with either the density of population or the amount of arable land per person.

Country	Density of population (1974)	Hectares of cultivable land per person
Bolivia	5	0.63
India	172	0.30
Holland	326	0.06

While poverty exists in both India and Bolivia, Holland enjoys a high standard of living. Unfortunately, comparative statistics such as these are rarely publicised. The government in its attempt to prove that population growth is the cause of poverty, often hides behind absolute and dramatic sounding figures like those quoted earlier.

Source : **Indian Economy**, Dutt & Sundharam, 1983 and **How The Other Half Dies**, Susan George, 1977.



## 8 : Village Health Workers

The concept of village health workers (VHW's), that is, persons from the village trained in basic medical care, is considered by many to be a true practical solution to the problem of inadequacy and ineffectiveness of medical services in rural areas.

Since 1977, the government of India has been training VHW's under the centrally sponsored community health volunteer (CHV) scheme. *The VHW's in the government programme were known earlier as community health workers (CHW's) and now as community health volunteers (CHV's). However, for easier reading, the village level workers trained by both the government and voluntary sector are being referred to as VHW's.* In the voluntary (non-government) sector, which first introduced and tried out the concept in India, training of VHW's is today seen as an essential component of a community health programme. VHW's have thus come to be accepted as the first tier in the health services structure, both within the government and the voluntary sector.

On the face of it, the training of VHW's by the government seems a radical step and one which should be approved of as a positive move towards a community oriented approach to health care. But it seems strange that after constantly emphasising the need to train medical personnel according to international standards, the government should encourage the training of VHW's.

This chapter outlines the conditions within which VHW's began to be seen as a solution to the problem of medical services in rural areas and discusses the fundamental assumptions on which the concept is based.

### Why did the idea of training VHW's begin?

By the late 1960's there was enough information to show that the medical needs of the poor in most third world countries especially those living in rural areas were not being met. The high cost of medical treatment, lack of resources and the unwillingness of doctors and other medical personnel to work in rural areas were identified as the chief reasons for this. The non-governmental sector in many of the third world countries had already started trying out alternatives such as mobile outreach clinics to meet the health needs of the poor. But these too had their own drawbacks especially since they did not seem to lower costs in any way.

Health planners and international agencies in the early 1970's began to feel increasingly alarmed about these problems. The Executive Board of the WHO in January 1975 stated,

"... we are on the edge of a major crisis which we must face at once as it could result in a reaction which could be both destructive and costly. There appears to be widespread dissatisfaction of populations about their health services for varying reasons."

The need to find solutions thus took on a new urgency as some form of medical help however minimal, had to be provided to the poor to keep their "dissatisfaction" under control.

This alternative form of medical help or any new strategy had to necessarily be low-cost, village based and culturally acceptable. It had to be low cost because resources were limited and most of it was already invest-



ed in hospitals, in providing sophisticated medical care for urban populations and in training doctors and medical personnel. It had to be village-based because people had to find it accessible to make use of it. It had to be culturally acceptable so that it would be easier to change people's harmful beliefs and health practices.

Of the many alternative health care systems functioning in different parts of the world, the Chinese experience seemed to provide the best answer. China had proved that an improvement in health status did not depend only on expensive medical technology and highly trained medical personnel. Its limited resources were spent on training a large number of basic health workers instead of being used to build hospitals and training doctors.

These basic health workers came to be popularly known as 'barefoot doctors'. Barefoot doctors were peasants selected from the village and trained in appropriate medical knowledge and skills to provide medical services at the village level. The improvement in the health status of China's large population seemed to prove that barefoot doctors were effective in dealing with the medical needs of its people.

The training of village people in medical skills to provide health care therefore began to be considered as an effective alternative strategy. It was low-cost as compared to training doctors; it was village-based because the trained person continued to work in the village and finally, the VHW's were culturally acceptable since they were 'from among the people'. The training of VHW's thus came to be widely seen as a practical solution for meeting the medical needs of rural populations.

For international agencies like the WHO a new strategy to control the dissatisfaction of rural populations

in Third World countries had been found. The fact that VHW's were of limited value in countries where the governments were not interested in dealing with wide disparities in income and wealth, was not of concern to these international agencies. Placebo's, however short-lived in their effects had to be provided—the VHW's concept fitted well as one such placebo.

In India, the government launched the scheme of training VHW's in 1977. For many years before this it had been noted time and again that medical services were not being adequately provided to rural areas specially because of the unwillingness of doctors to work there. However, each time, the suggestion of training another category of workers to diagnose and treat at a more basic level was discussed, but rejected. Each time, the necessity of maintaining international standards was given as the reason for making such a decision.

It was for the same reason that the Bhore Committee did not suggest that India adopt the model followed by Russia. The Russians had successfully trained a more basic level health worker (called 'Feldsher') than the doctor and had shown that it was possible to provide adequate medical services through this category of workers. It was only after a period of considerable social and economic unrest (in the late 1960's and early 1970's) which threatened to destabilize the political situation that the idea of training VHW's gained acceptance. Such a measure was seen as a way by which people in rural areas could be provided with basic health services to some extent.

The voluntary organisations had already started experimenting with this idea. Their experiences showed that it was possible to teach even non-literate village people the basis of diagnosis and treatment of minor ailments



and preventive care, thereby reducing morbidity to a certain extent.

Therefore, when in 1975, the Shrivastav Committee set up by the government to look into medical education and manpower, put forward the proposal of training CHV's, the government accepted and implemented the scheme with promptness. Thus, the CHV scheme was introduced in India, neither because the government was genuinely concerned about the health of the people and saw it as a good approach, nor because the government had developed a faith in the capacity of the 'villager' to undertake such activities. On the contrary the scheme was introduced keeping in mind the political situation within the country which called for some immediate solution.

## The Indian experience

It might be argued by some of us that even if the VHW scheme was motivated by political reasons, the VHW's could still perform a useful role in the Indian situation. Without going into a detailed analysis of the role and performance of VHW's, let us examine the Indian experience in relation to the **one basic principle** on which the success of VHW's rests, namely, that the VHW's will be selected by the village people themselves. This principle was based upon the following three assumptions :

- If everybody took part in the selection, there was a greater chance that the VHW's would be well accepted.
- VHW's selected by the people would be more likely to feel that their first responsibility was to the people.

"The task expected of the community health worker is: immunization of the new born and young children, distribution of nutritional supplements, treatment of malaria and collection of blood samples. He is, however, also expected to look after elementary curative needs of the community. The overall philosophy is that the health work which has hitherto been looked after largely by government, will now, for the first time, also rest in the hands of the people. The community health worker being the man of the community, will be accountable to the community and the community, in turn, will supervise his work. The philosophy of community involvement and participation in the provision of primary health services, also implies that the community would supplement the resources required for the continuation of this work and would completely take over the programme at a subsequent point of time".

(NIHFW)

- **Participation by the people in the process of selecting a VHW, would be a step towards greater responsibility and control by them over the factors affecting their health.**

It will be worthwhile to see how far each of these three assumptions, basic to the concept of VHW's worked out at the village level in India.

**If everybody took part in the selection there was a greater chance that the VHW's would be well accepted**

We have seen in the earlier sections of this book, that a village is divided into different groups. Some people have more money, influence and power, while the others are poor and powerless. Decisions concerning



the village are made by the rich people with the poor having little or no say in the matter.

During the initial years when the VHW concept was being tried out by the non-governmental community health programmes, the rich people in the village often chose a low-caste woman as the VHW. This was because the tasks a VHW was expected to perform i.e. take care of the sick, clean wounds and conduct deliveries, were thought to be 'dirty'.

Health programmes also expected the VHW to visit all the houses in the village. Going from 'house to house' was considered 'immoral' for a woman to do. The high caste men who were often the powerful group in the village were therefore unwilling to allow the women from their own homes to work as VHW's.

*The selection of a lower caste woman actually turned out to be advantageous to the health programmes since they wanted the services of the VHW to reach those who needed it the most.*

But slowly, as the idea gained acceptance, the neighbouring villages saw the special status enjoyed by the VHW in her own village. This, combined with the 'salary' that the VHW was being paid, led to the selection of high caste women as VHW's in later years. However, the VHW's from the high caste group were reluctant to visit the homes of the lower caste people. If a health programme insisted that the services of a VHW be available to all in the village, often a compromise had to be reached. The village would select two VHW's one from the high caste group and another from among the low caste, thus reinforcing the caste system in the village. Very few programmes were able to bring about a change in the attitude of high caste VHW's in this regard.

In the government programme, the basis on which a VHW was selected, inevitably excluded the poor. Firstly, the person was expected to have studied upto the eighth class. Secondly, the responsibility of selecting a VHW was given to the Panchayat. Thirdly, the tasks expected of the VHW did not include house visiting and conducting deliveries. Added to these, was the fact that the selected VHW was to be paid Rs. 200 per month during the three months training period and after that Rs. 50 per month as honorarium.

In many villages, the landowners, the Sarpanch or the headman put up their sons or relatives for the post of the VHW. Even if the selection was done during a village meeting with most of the people gathered, the poor people would be afraid to suggest someone else. As a result the VHW chosen often represented the interests of those with land and power rather than those with the greatest need.

Thus, the selection of a VHW, like all other major decisions in the village, was made by the powerful groups, in a way that would benefit themselves the most.

**VHW's chosen by the village would be more likely to feel that their first responsibility was to the village**

We have already seen that only a small section of a village was active in selecting a VHW. Hence it was unlikely for the VHW to feel responsible to the entire village. Even if we assume that everybody took part in selecting the VHW, it did not follow that she would feel responsible to the village. The crucial factor in determining who the VHW felt accountable to lay in the question of payment. Responsibility is felt towards the one who pays. In both the government and often



But is it possible to shift the VHW's sense of responsibility by getting the village to pay for her services?

## An Evaluation of Community Health Worker's Scheme

Given below are the findings of a study conducted in 1978 by the National Institute of Health and Family Welfare. Out of the CHW's interviewed, the following was found :

1. Percentage distribution of CHW's according to caste :
 

Scheduled Caste and Scheduled Tribes	21.2
Non Scheduled Caste and Scheduled Tribes	77.4
2. Percentage distribution of CHW's by age :
 

15-19 years	13.4
20-29 years	65.9
30-39 years	17.9
40 and above	2.8
3. Percentage distribution of CHW's by educational status :
 

Illiterate	0.3
Primary School	29.1
High School	62.1
College and above	8.5
4. Percentage distribution of CHW's by sex :
 

Males	93.7
Females	6.3

Here, we need to understand, why many health programmes decided to pay the VHW in the first place. When health programmes initially explained the idea of training a VHW to people they often showed a complete lack of interest in coming together to choose a VHW. This was mainly because they could not understand how one of them could ever learn and be as effective as the members of the health team in diagnosing and treating diseases.

There were also practical problems. The activities expected of the VHW, seemed to be time-consuming and it was natural to expect that this loss of time be compensated. It was also seen that other members of the health team were being paid. In the people's understanding, the VHW was joining the health centre as a staff member. So it seemed reasonable to expect the health centre to pay for her services also.

Faced with the difficulties of a village reluctant to choose a VHW, and expecting the VHW to be paid if chosen, it seemed worthwhile for the health centre to give her a certain amount as an honorarium. This was also done with the hope that once the usefulness of the VHW was demonstrated, people would be willing to contribute for her services. However, attempts made in this direction, in later years, met with limited success, especially since the health centre had already shown that it had the capacity to pay the VHW's.

But equally, many health programmes realizing that whoever pays also controls, were reluctant to get the village to pay the VHW. Given the unequal power structure in the village, health programmes felt that if the village were to pay the VHW for her services, she would be controlled by the few powerful people in the village. By placing unnecessary demands on her, she would be forced to spend less time on the rest of the



In an evaluation study done by the National Institute of Health and Family Welfare, the government VHW's were asked if their panchayat members would be willing to contribute to get more medicine, and if yes, have they contributed so far. 15% of the VHW's interviewed stated that their village panchayats would contribute but it was seen that the actual contribution to buy more medicine by panchayats was only 1%.

people. Therefore, from the health programme's point of view it was more desirable for them to retain control by continuing to pay the VHW.

It has been suggested in recent years, that the money for government VHW's be channelized through the Panchayats. But it is well known that panchayats rarely represent the interests of the majority of the people.

Thus, as long as a VHW is selected by a handful of people and is being paid by an authority outside of the village, she will not feel answerable to the whole village in which she is working. But, as we have already seen, the question of shifting the VHW's sense of responsibility to the whole of the village is a complex and difficult one in an exploitative society.

**Participation by the people in the process of selecting a VHW, would be a step towards greater responsibility and control by them over factors affecting their health**

What does this assumption mean? From Section 1 we know that inadequate food, clothing and shelter, lack of clean drinking water and the non-availability of medical services are some of the basic factors which affect people's health. We have also learnt that to bring about a change in their health status, people should be able to exercise control over the distribution of these resources.

A well trained VHW is a valuable resource in a village. The availability of her services can affect the health status of the people. By actively participating in selecting a VHW and ensuring that a good choice is made, people would be exercising control over a potential resource. Thus, this experience of making a decision, although a small one, could lead to a sense of confidence in themselves as persons, thereby helping them

to make major decisions to change other factors affecting their lives.

This is the desirable situation. In reality, a majority of the people are not allowed to make even a minor decision like choosing a VHW. We have also seen that the selected VHW does not feel answerable to the whole village. Under the circumstances, people cannot exercise control over his work.

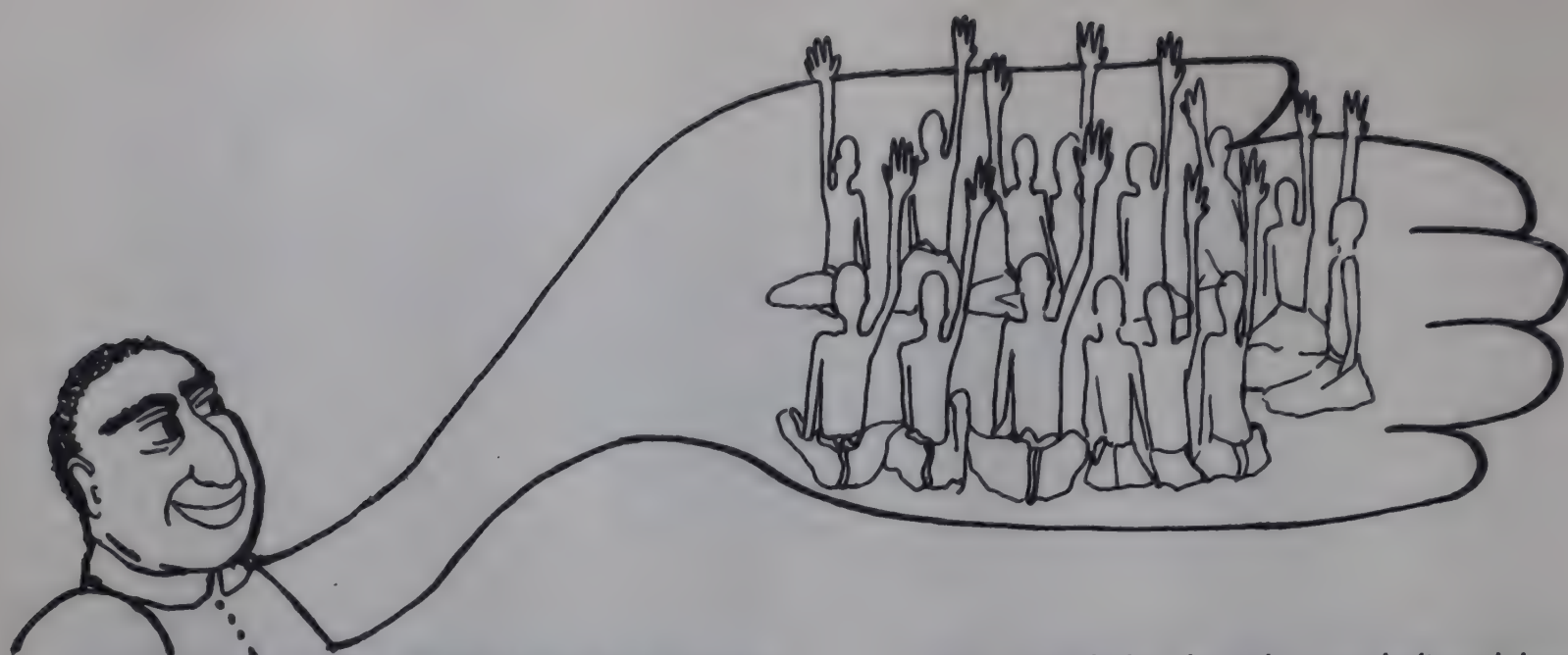
In the absence of this social control, a VHW has every chance of misusing his knowledge and skills. Many VHWs trained through the government have been known to set up 'private' practice using all the unethical practices of private doctors (qualified or unqualified). They charge a high price for their medicines and even give unnecessary injections. The medical knowledge and skills they have gained during their training is being misused against the very people they are supposed to help.

Thus, the assumption that, by participating in the selection process people would take an important step towards controlling other factors affecting their health, has unfortunately remained a 'dream' in the Indian situation.

To conclude, the training of VHW's was introduced in India as a means of providing basic medical care to the vast majority of the rural poor. Over a period of two years it was proposed that the government train 5 to 8 lakh VHW's. If these many VHW's have actually been trained by the government (which is doubtful), it would mean that theoretically there is one VHW for each of India's approximately 6 lakh villages.

The objective of extending medical services to the rural population has therefore been achieved to the extent that there is someone trained in basic medical skills available in the village. However, the most basic





objective of **providing medical services to everyone** has not necessarily been achieved.

This is because the majority of the people were not involved in either selecting them or supervising their activities. Since the VHW's are selected primarily by the powerful group in the village and are being paid either by the health centre or the government, the work done by them is more to meet the expectations of these groups rather than to meet the needs of the poor in their villages. This is the major difference in the way in which the VHW's programme was implemented in India and China.

In China where the VHW's concept had originally evolved, local communes had selected the VHW's and exercised control over their activities. The communes were also concerned about the VHW's and even contributed their labour on the fields of the VHW's while

they attended to the sick. It was believed that what was successful in China would be successful in India. But in this reasoning, the important social change that accompanied the training of VHW's in China was underplayed.

In China, during that time, major changes were taking place. Land and other resources were being taken from the rich people for redistribution among the poor. The poor were thus gaining more power and control over their lives. People who had no power previously were beginning to make decisions for themselves and taking active part in decisions that would affect their lives. In this situation, the training of VHW's was seen by the people as sharing of yet another resource, i.e., medical knowledge, which had till then been in the control of the formally trained medical professional. It was this accompanying change that made the VHW's programme in China a success.

Selection and training of VHW's therefore has a limited success in an exploitative society where power relationships have not been equalized.





## 9 : Curative services

Curative services are an essential component of any system of medicine. However, in modern medicine, curative services gained a predominance over all other aspects of healing. This is because of several reasons, as we have seen in Section II.

Firstly, modern medicine developed at a time when it was becoming possible to control many more aspects of nature through human intervention. The focus of this system of medicine was therefore to develop techniques by which human beings could actively intervene in the disease process.

Secondly, during this time the human body was believed to function much like a machine, so disease came to be viewed as the mal-functioning of some part of the human body. Just as it was possible to find a single cause for the breakdown of other machines, similarly in medicine the attempt was to find the single direct cause of disease. Such a view of disease naturally led to the need to find remedies for the immediate cause of disease.

Thirdly, long before modern medicine developed any really effective cures for disease, the practitioners of this system of medicine, the doctors, gained control over medical practice by eliminating competition from all other healers. Once in control, these doctors were the only ones to determine what the focus of medical care should be. It was in their interest to keep the focus of medicine limited to the immediate cause of disease since they could then have a dramatic role to play in reversing the disease process. This was also in the interest of businessmen who encouraged and funded the development of modern medicine along these lines.

Fourthly, since the doctors now gained their livelihood solely from the money earned from patients, it was in

their economic interest to propagate their remedies as the only effective means of curing disease. Medical care thus became something which had to be paid for like any other commodity, and was sold to patients on the terms and conditions set by the doctors.

Fifthly, as modern medicine started gaining acceptance among the public, the need arose to produce drugs, diagnostic aids, surgical equipment etc. on a large scale. This task of production was taken over by industrialists who helped in creating a further demand for modern medical techniques through successful advertising.

All these factors helped in creating a system of medicine which developed very powerful methods to deal with disease, but since its development was also tied up with the economic interests of various groups, several unethical practices also came to be an integral part of medical practice.

As modern medicine is the officially adopted system of medicine in India, these same factors operate within our country also. The only significant contribution of this system is in the form of curative services but these services are too expensive for most of the people in our country. By restricting practice of medicine to a select group, the medical profession prevents others from gaining medical knowledge and skills. This control over practice also allows the exploitation of the patient by doctors to go unchecked. Alongside, the industries that produce drugs and equipment have also developed a monopoly over the market. This allows them to promote unnecessary, expensive and sometimes hazardous products.

In the context of rural areas, all these factors create a number of problems in providing curative services. As already pointed out earlier, people in rural areas uti-



lize modern medicine primarily for gaining quick relief from symptoms or in emergency situations where all other methods fail. However, doctors are usually unwilling to work in these areas and the ones who are there are usually private practitioners who charge heavily for their services.

The government PHC's are invariably understaffed and ill-equipped to provide adequate services to the population they are supposed to serve. As a result, nurses and paramedical workers, mainly those working in the voluntary sector, are placed in a situation where they are forced to diagnose and treat even though they are not trained to do so. In fact, it is considered illegal for a nurse to dispense medicines without the supervision of a doctor. Under these constraints, nurses do the best they can to cope with the role that they find themselves in.

However by the very fact that they are taking up the function of providing curative services, these health workers also become a part of the unethical system which has been created by doctors and drug companies. This can be seen from the way in which drug companies, who till now attempted to convince only doctors to use their products, have started sending sales representatives to nurses in rural areas also.

This new trend is all the more dangerous since nurses have much less access to information regarding appropriate use of drugs than the doctors. This chapter therefore aims to help health workers use modern medicines rationally and overcome some of the problems which have become a part of medical practice today.

**The basis of curative services lies in correct diagnosis and a rational use of drugs.** In a dispensary or health

mainly rests on the ability to analyse the symptoms and physical signs in a sick person. This requires a sharper clinical judgement than is necessary in a hospital situation. Unfortunately, nurses working in rural areas are unable to gather knowledge and skills related to diagnosis and treatment in a systematic manner. They have to rely on whatever knowledge they gained working in a hospital or in working with an experienced nurse. A large part of their skills may come purely from their own successes and failures.

Prescribing medicines is a serious responsibility. Any person who undertakes this responsibility should prepare herself well for the task. *David Werner's **Where There Is No Doctor** is an excellent book which can help anyone in diagnosing and treating common illness at the dispensary level. This book is available in some regional languages also.*

The other crucial aspect of curative services is the rational use of drugs, i.e., all medicines used for therapeutic purposes. Modern medicine has developed very specific drugs for the treatment of specific diseases. Unless there are other complications, most patients having the same disease can therefore be treated with the same drugs. However, in actual practice, prescriptions for the same disease vary widely among medical practitioners, and drugs are often prescribed irrationally. Drug companies, on their part, do their best to promote medicines which are not necessarily needed. Several popular beliefs regarding use of medicines also lead to overuse and misuse of drugs.

In 1978, Dr. Shantha Prabhushankar conducted a study of prescription practices among doctors. Doctors working in different medical institutions in Varanasi district in U.P. were given disease profiles (history, signs, symptoms and diagnosis) of 20 common diseases



### Prescribing patterns for all diseases in different categories of doctors

	Category of practitioner					Total
	Teaching hospital	District hospital	Private practitioner urban	University health centre	Primary health centre	
Total number of prescriptions	102	100	134	100	140	576
Total number of drugs prescribed	213	280	327	198	439	1457
Average number of drugs prescribed	2.09	2.80	2.44	1.98	3.14	2.53

### Types of Drugs Prescribed

Sulpha/antibiotics	64.7%	70.0%	70.8%	53.0%	87.7%	70.7%
Analgesics and antipyretics	15.7%	46.0%	29.1%	27.0%	35.0%	30.7%
Antihistamines	12.7%	18.0%	16.4%	8.0%	20.0%	15.5%
Nutritional supplements	54.7%	80.0%	58.1%	38.0%	77.0%	67.4%
Others	60.5%	66.0%	47.3%	72.0%	73.6%	68.7%

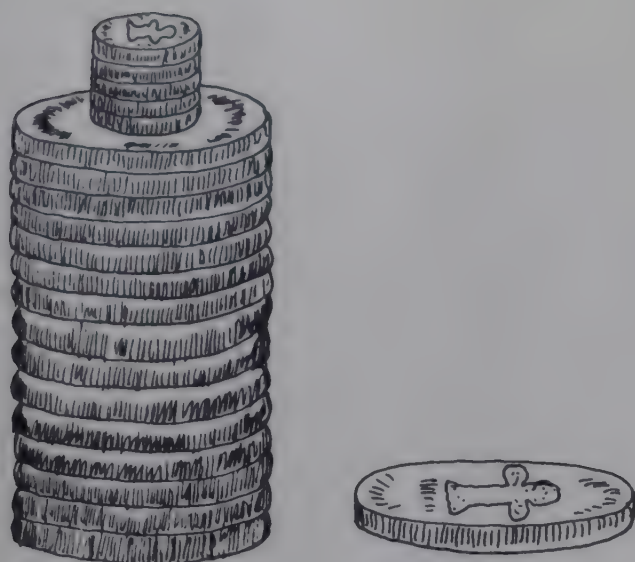
and asked to write prescriptions accordingly. From this study she found that doctors in PHC's and district hospitals prescribed the most medicines. Contrary to popular belief, doctors working in teaching institutions prescribed the least number of drugs as can be seen from the table.

Among the drugs prescribed, the most common were sulphas and antibiotics, followed by nutritional supple-

ments like tonics, vitamins and minerals. Once again, PHC doctors prescribed the most antibiotics and also prescribed more nutritional supplements than other doctors.

According to this study, antibiotics and sulphas were the most misused drugs, and PHC doctors prescribed them unnecessarily more than other doctors.





## Average cost of prescriptions (in rupees)

## Range of the cost of drugs prescribed

Disease Profile	Category of practitioner					Cheapest prescription		Costliest prescription	
	Teaching hospital	District hospital	Private practitioner urban	University health centre	Primary health centre	Prescribed by	Cost (in Rs)	Prescribed by	cost (in Rs)
Measles	6.57	13.36	10.58	2.65	10.92	UHC	0.30	PHC	27.42
Whooping cough	13.35	14.28	21.11	15.75	17.27	TH	4.71	PP	46.11
Diarrhoea	7.08	10.46	9.79	6.74	8.38	PP	3.83	PP	26.53
Protein calorie malnutrition	7.44	18.86	21.00	10.31	13.35	TH	3.28	DH	32.34
Upper respiratory tract infection	6.70	12.23	11.29	4.71	8.60	UHC	0.41	PP	19.90
Chronic amoebic dysentery	19.13		19.72	15.04	38.84	UHC	3.86	PHC	66.72
Pulmonary tuberculosis	228.38	141.68	191.94	167.02	317.50	DH	86.80	PHC	846.17
Infected scabies	23.22	10.68	8.82	5.75	25.50	UHC	2.53	PHC	65.00
Iron deficiency anaemia	27.18	70.38	42.14	26.74	95.54	TH	4.56	DH	106.23

218 With regard to the cost of medicines prescribed, district hospitals and PHC's gave the most expensive treatments. The cost of treatment for each disease in fact varied greatly from doctor to doctor.

The World Health Organization has identified 75 different ways in which doctors end up using drugs irrationally. Some of the common reasons for irrational use of drugs are given as follows.



### **1. Wrong diagnosis**

Doctors over-prescribe when they do not have adequate time or facilities to make a proper diagnosis. This is often the situation in overcrowded out-patients departments where a doctor might have to see upto 100 patients in a few hours. The medical students are also trained in big hospitals with a lot of diagnostic facilities like laboratories, X-ray etc. In the absence of these equipments a newly graduated doctor is unable to diagnose on the basis of clinical judgement alone.

### **2. Lack of proper knowledge about drugs**

Sometimes doctors do not have enough knowledge of drugs and their prescribing principles. This is due to the fact that much of what is taught during the medical training is often forgotten within a few years. Doctors may not keep up with their reading and also have no opportunity to attend refresher courses.

New drugs are being rapidly added and medical training does not train the future physician to judge a new preparation critically. Knowledge of pharmacology is limited to the effectiveness and toxicity of each drug. It does not include information on the cost of each regime of therapy.

### **3. The role of drug companies**

It lies in the interest of drug companies to get doctors to prescribe irrationally. The sales representatives from drug companies try to convince doctors about the superiority of their products over all others in the market. Their argument might be that their iron preparation is far superior to the simple well known and cheap

ferrous sulfate. Referring to a pharmacology book might show that ferrous sulfate is as good as this new iron preparation. But the doctor believes the information given by the sales representative to be true and starts prescribing this new drug.

In fact the WHO reported that drug advertisements and contact with sale representatives were often the main source of information for a doctor and sometimes the only one. Sales representatives also give doctors free samples of their drugs, along with calendars, table pieces and other attractive gifts. The information given by the drug companies is naturally favourable to their product. The serious side effects, complications and even ineffectiveness of their drug is underplayed or not shared at all.

In the absence of unbiased information on a particular drug, the doctor is unable to evaluate the information supplied by sales representatives correctly.

### **4. Drugs not available in the market**

This is a big problem when a long term regular treatment is necessary as in the case of tuberculosis and leprosy. Drugs for these diseases are not profitable to manufacture. The drug industry therefore produces as little of these drugs as possible and invests their money in more profit producing drugs.

The drug industry also tries to create an artificial shortage of certain drugs by withdrawing its products from the market. This results in the doctors prescribing a more expensive alternative drug which is also produced by the same company and which the company wants to promote.





## Antibiotic resistance

Antibiotic resistance was first noticed in an epidemic form in Kerala in 1972, when some 3000 cases of chloramphenicol-resistant typhoid were found around Calicut. It was soon discovered that antibiotics had been over-used during an epidemic of viral gastroenteritis amongst children which had started around the end of 1971. Although antibiotics are ineffective against viruses, they had still been prescribed on an unprecedented scale. A particular favourite of doctors was an unnecessary and irrational combination of two antibiotics, chloramphenicol and streptomycin—still available as a brand product but now on a list of drugs that the government wants to ban. This excessive use of antibiotics resulted in a resistant epidemic of typhoid.

The typhoid epidemic itself subsided by the end of 1972 but the affected area of North Kerala has now become endemic for antibiotic resistant strains. In 1976 another epidemic of resistant typhoid occurred.

Since 1978, drug-resistant typhoid fever has been reported from other parts of India, including cities like Madras, Bombay and Chandigarh. This is not a case of the same infection spreading across the country. Each time it is a new focus of multiple drug resistance emerging.

Hospitals, where antibiotics are used freely, are probably the most unsafe places for newborn infants today.  
(Centre for Science and Environment)

## 5. Free medicine from abroad

Many non-governmental institutions get free medicine as a gift from other countries. When the gift is from countries where English is not the main language, the drugs' name and usage may be written in a foreign language only. The end result is that these medicines are distributed in the health centres without the medical personnel being aware of the basic ingredients in the preparation, their side effects, complications, and at times even dosage.

## 6. Profit motivation

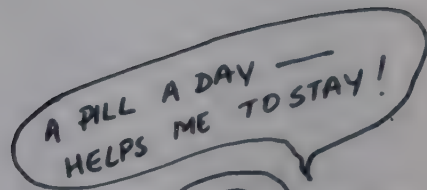
In our country private practice has become the norm. In private practice the income of doctors is dependent on how much money they can get from their patients

and their ability to retain their clients. So the doctors' basic aim in this is to satisfy the need of the patients. The doctors also play up to the myths propagated by the drug companies that a 'good' doctor gives expensive drugs and the more the number of drugs in the list, the sooner the cure.

There is also the tendency to prescribe the 'latest' drug available in the market just to prove that they are keeping in touch with the new developments in medical knowledge.

It is also well known that some doctors have an agreement with the local chemist's shop to get a certain percentage of the profits of the shop if they prescribe expensive drugs. Doctors owning their own chemist shop will also try to get their patients to buy as many medicines as possible.



A cartoon illustration of a mosquito with a speech bubble. The mosquito is depicted with a large head, a small body, and long legs. It is facing left. The speech bubble is oval-shaped and contains the text "A PILL A DAY — HELPS ME TO STAY!".

A PILL A DAY —  
HELPS ME TO STAY!

## Malignant malaria

Another alarming problem, besides the spread of insecticide resistance in mosquitoes, is the increasing resistance to chloroquine of the most dangerous form of malaria, *Plasmodium falciparum*, also known as malignant malaria. *Plasmodium falciparum* kills 40 per cent of its victims if they go untreated. Resistance of the malaria parasite to chloroquine is a phenomenon already widespread in Asia and Latin America. In Asia, chloroquine resistance was first noted in the early

1960s in Thailand. But since then it has spread westwards, being first noted in north-eastern India in 1973. Now, however, chloroquine resistance is found widely in Nagaland, Assam, Meghalaya, Arunachal Pradesh and Mizoram and has spread slowly to Bihar, West Bengal, Orissa, Andhra Pradesh, Madhya Pradesh, Maharashtra, Mirzapur district of Uttar Pradesh and areas bordering the north of Delhi.

(Centre for Science and Environment)

## 7. Trying to retain patients' goodwill

A patient's need is immediate symptomatic relief. A satisfied patient will come back to the same doctor when he falls sick again. Due to the aggressive promotional campaigns by drug companies many myths have also been created in the patient's mind. These include beliefs like—tonics and vitamin preparations are necessary for good health, injections are better than tablets.

Often doctors succumb to the patients verbal and non-verbal desire to get tonics and injections. Even if an individual doctor is convinced that these preparations are useless, the doctor may still end up prescribing these to meet the patients expectations. Sometimes a person who does not need any medicines at all is also given medicines due to this same pressure.

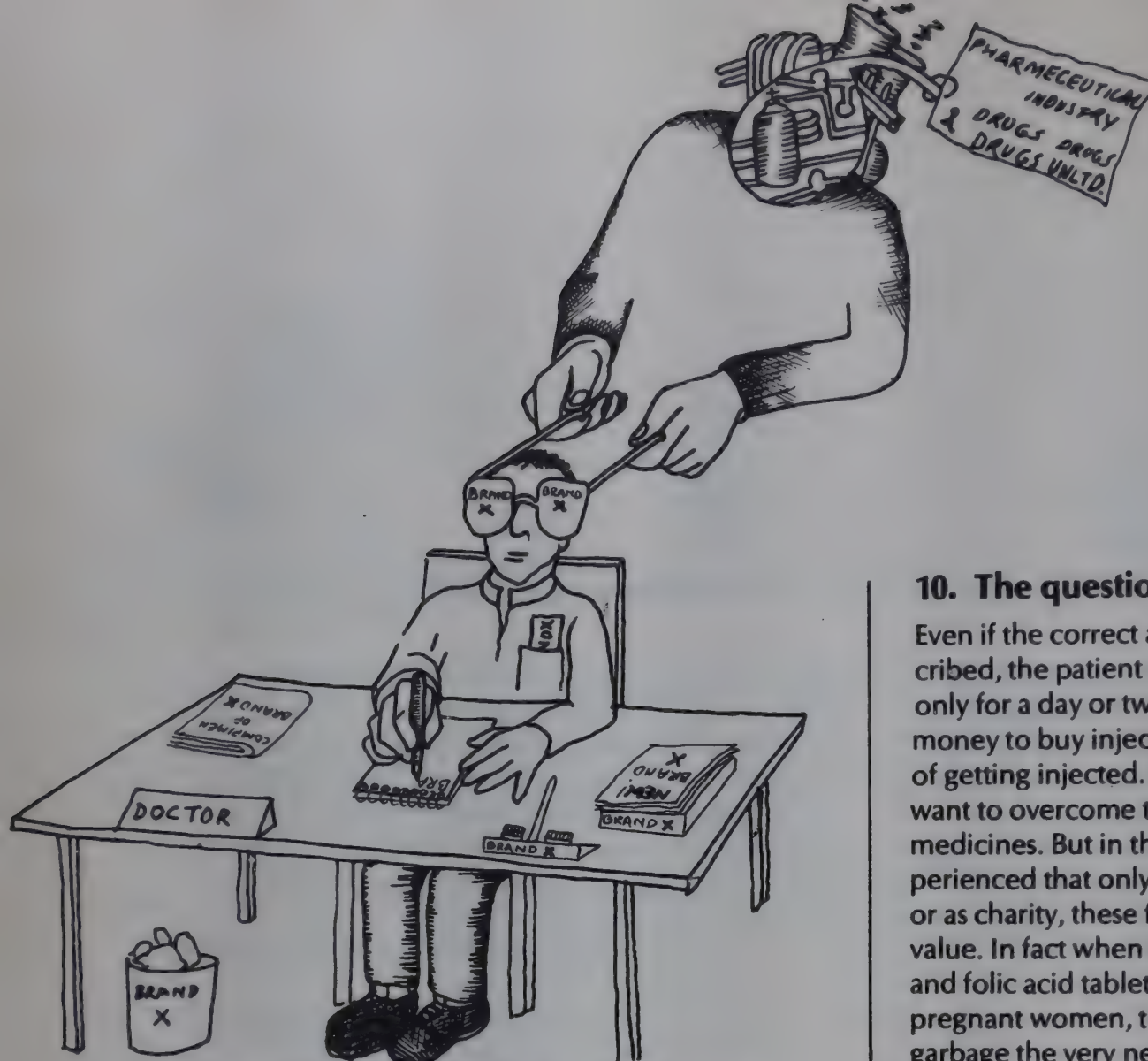
What is worse and sometimes dangerous, is that drugs are prescribed in order to show the patient dramatic

and immediate improvement. A recent example is the practice of some paediatricians who give anabolic steroids, a powerful drug with many side effects, to children whose symptoms may range from tiredness to not gaining weight.

## 8. Going from doctor to doctor

No two doctors follow the same prescription practices for the same disease under the same conditions. If a patient visits one doctor for a problem and does not get well within a day or two he may visit another doctor. The second doctor will then write out a prescription of a different set of drugs as he does not want to give the same drugs the previous doctor has given. This results in a patient getting two or three antibiotics for a disease with little chance of taking the complete course of the treatment.





### 9. Wrong way of taking the medicines

Very often patients take drugs in a wrong way. They either reduce the dose to make the treatment last longer or increase the dose hoping for a quicker cure. Sometimes the drugs are taken at wrong times or a dose is forgotten. Patients on long courses of treatment such as for tuberculosis, often stop their treatment too soon, usually as soon as they start feeling better. They do this because the action of the drugs in the body may not have been explained properly. It may seem unnecessary to the patient to continue taking drugs even after the symptoms have gone, since for the patient, the purpose of taking the medicine has already been achieved.

Sometimes, especially in an overcrowded OPD, proper instructions may not have been given by the medical personnel. Patients have been known to swallow anal suppositories as the medical personnel had forgotten to explain that it had to be inserted into the anus. Prescribing too many drugs might also confuse the patient as to which drug needs to be taken at what interval.

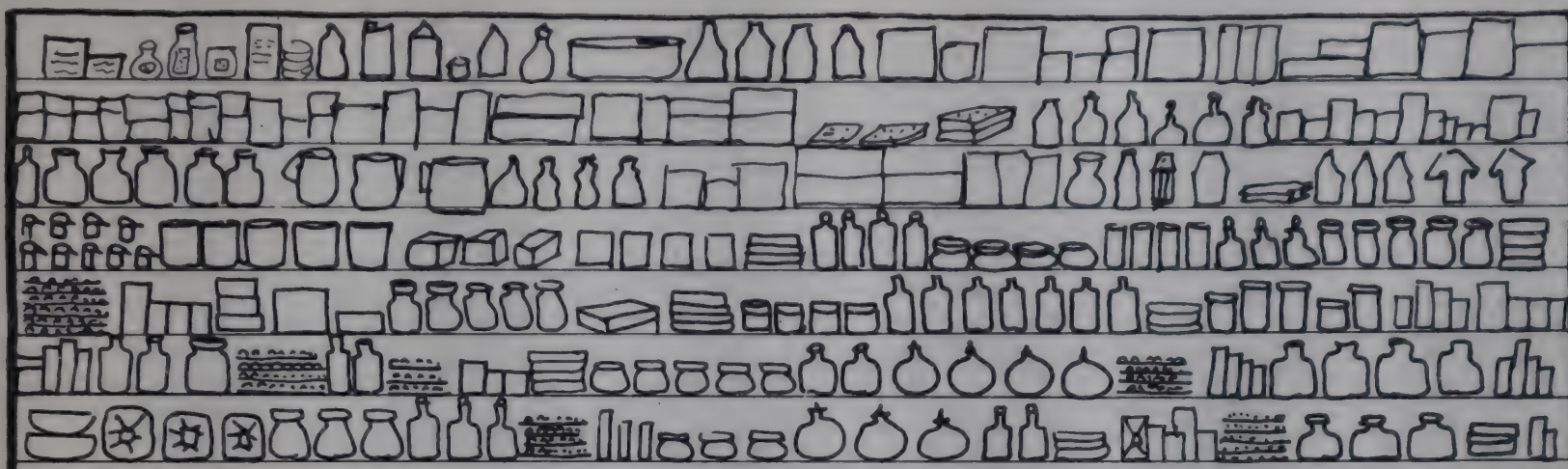
### 10. The question of cost

Even if the correct amount of drug has been prescribed, the patient might have money to buy drugs only for a day or two. Sometimes the patient may have money to buy injections but be unable to pay the cost of getting injected. Sometimes the health centre might want to overcome this problem by distributing free medicines. But in the eyes of the people who have experienced that only useless things are given away free or as charity, these free drugs may seem to be of no value. In fact when the government distributed iron and folic acid tablets free of cost routinely to all the pregnant women, the drugs found themselves in the garbage the very next day.

Many times patients can afford to buy only one or two medicines out of all that has been prescribed. The patients' tendency is to buy those written first in the list. However some doctors write the inessential drugs first and the important ones last. As a result, patients end up spending money on drugs which were not really essential and remain untreated in the bargain.

As can be seen from the above discussion, drugs are overused and misused for a number of reasons. However, since private practice is the most common form of medical practice in India today, the profit motivation of doctors together with the pressure put by drug companies are two of the most important reasons for the irrational use of drugs. This is a matter for great concern as more and more people are developing resistance to life-saving drugs which become useless when they are really needed. Also for the poor, the more that is spent on drugs, the less they have left for essentials such as food. It is therefore extremely important that health workers use medicines with great care and teach others to use them correctly too.





About 4 out of 5 illnesses are **self limiting**. This means that people get well whether they take any medicine or not.

A majority of the health problems of the poor are because of their poverty. No amount of medicines can deal with these problems adequately.

In some countries (Africa, Latin America) where peoples' health problems are very similar to those in India, poor people spend as much as 30-50% of their year's earning on health care—herbal remedies, modern medicines, travel to doctors etc. Often they borrow money at high interest rates to meet this expense. After treatments, even if the person recovers from the illness, the family is left with very little money for food, and so people in the family soon fall ill again. **Thus, costly health care can become a major cause of poor health.**

*adapted from David Werner's  
Helping Health Workers Learn*

## Using drugs rationally

The first task of a concerned health worker should be to study the disease pattern in her area and make a list of essential drugs required to treat these diseases. While diseases like diarrhoea, worm infestations and upper respiratory infections are common throughout the country, some diseases like filariasis, goitre and leprosy are more common in certain parts of India than in others.

A study of the out-patients register for a full year can help a health worker to prepare such a list. Records need to be studied for a full year because some diseases

are more common in certain months of the year. On the basis of this list of common diseases, the health worker can then choose one of two drugs which would be most appropriate for each disease.

Choosing appropriate drugs may seem a difficult task as there are some 30,000 drugs available in the country. However it has been estimated that less than 1% of these, that is about 116 drugs, can satisfy the basic drug needs of the country. At the village level, according to the ICMR, ICSSR report '**Health For All**', only 18 drugs are really essential. This means that a majority of the drugs being sold in the country are not really essential and are therefore inappropriate to use.

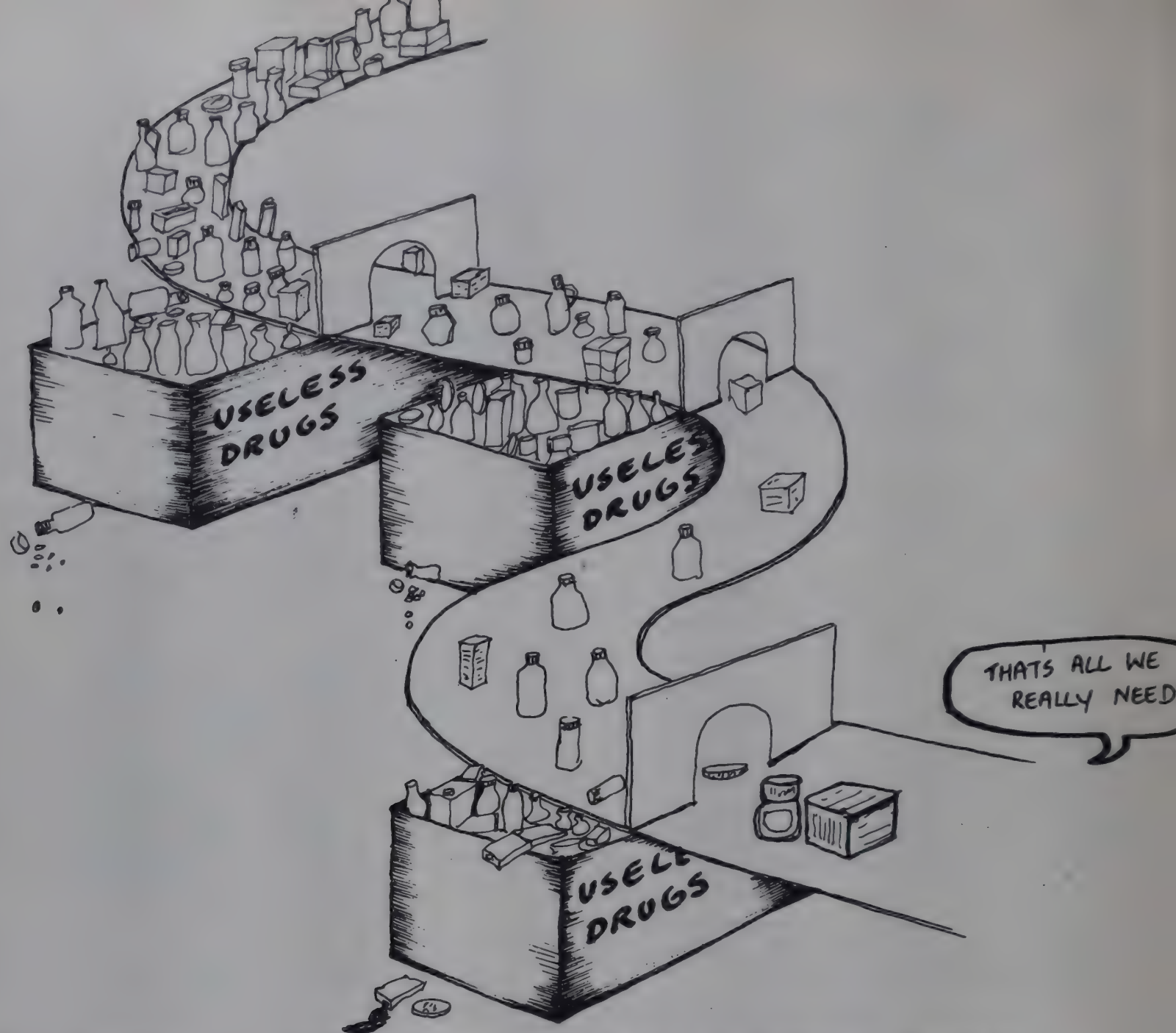
Health workers can choose drugs most suited for their use by keeping a few points in mind. The chosen drug should be :

- \* effective
- \* a first line drug
- \* a single ingredient drug
- \* easy to take
- \* cheap.

## Choosing drugs which are effective

Out of all the drugs available in the market, very few of them have been thoroughly investigated, and their value well established. Drugs such as chloroquine, antibiotics, antihelminthics (worm medicines) are in this category. These are useful without doubt if used correctly. On the other hand, many drugs are commonly used but their effectiveness is very limited, doubtful or none at all.





According to the WHO, there is insufficient evidence regarding the usefulness of cough syrups, throat lozenges, ear drops and nasal sprays. Further, many of these preparations contain small quantities of antibiotics which can be dangerous in the long run.

Recent research has proved that all anti-diarrhoea drugs like lomotil, mexaform etc. are not only useless in treating diarrhoea but are also dangerous.

Most vitamin preparations and tonics are of very limited value and often contain individual vitamins far in excess of the body's requirement.

A large number of skin ointments like penicillin ointment, ointments for burns, ointments containing steroids are also not only useless but harmful. The health worker should therefore choose only drugs which have been proved effective.

### Using first line drugs as far as possible

The term first line drugs refers to those drugs which should be used first in the treatment of a particular disease. Second line drugs are those which should be used only if the first line drugs fail to cure the disease. For instance, INH, streptomycin, PAS and thiacetazone, are first line drugs for the treatment of TB while ethambutol, pyrazinamide and rifampicin are second line drugs.

While both the first line and the second line drugs are effective in treating TB, the second line drugs are more potent (powerful), more expensive and more dangerous. Common use of second line drugs is already making TB bacteria resistant to these drugs and as a result, life saving drugs are becoming useless.



## Using single ingredient drugs

Very few drugs in the market contain only one ingredient. Examples are tetracycline, penicillin, ferrous sulphate, aspirin etc. A large number of drugs on the other hand contain one main ingredient together with several other ingredients. These are called combination drugs.

Examples are APC (**aspirin** + phenacetin + caffeine); **Chloramphenicol** + streptomycin; **tetracycline** + analgin + Vitamin C; multivitamins etc. In the above combination drugs, aspirin, chloramphenicol and tetracycline are the main ingredients. The other ingredients are present in small quantities only.

The role of these other ingredients in combination drugs is very doubtful since they are present in too

small quantities, to have any real effect (see table below). Ingredients such as Vitamin C, multivitamins and caffeine are not very useful even by themselves. All the same, drug companies make a great effort to promote combination drugs because they are more expensive and the company gets larger profits from the sale of such drugs.

In case a patient develops a reaction to a combination drug, it is also more difficult to pinpoint which one of the ingredients caused the reaction. For instance, a patient given strepto-penicillin can develop a reaction to either streptomycin or penicillin or both. Single ingredient drugs are effective, safer and cheaper than combination drugs and should therefore be the choice of the health worker.

Aspirin Preparation	Ingredients	Approximate price per tablet in paise
Aspirin	aspirin 300 mg	3
Aspro-microfined	aspirin 350 mg + Caffeine 20 mg*	8
Codopyrin	aspirin 250 mg + Phenacetin 250 mg? + Codeine 8 mg	14
Dristan	aspirin 230 mg + Phenacetin 97 mg? + Caffeine 16 mg* + Phenylephrine 5 mg + Phenindamine 10 mg + Vitamin C 20 mg**	18
Veganin	aspirin 250 mg + Phenacetin 250 mg? + Caffeine 32 mg + Codeine 7 mg*	24

\* Quantity less than the minimum required to be effective.

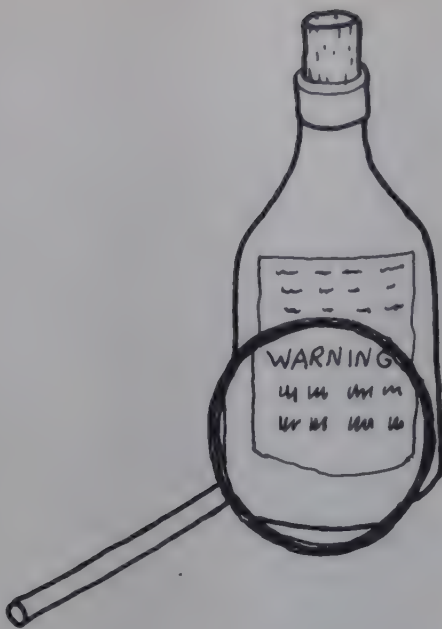
\*\* Very low quantity

? Inclusion not recommended, because of high toxicity.

1 cup of tea or coffee gives the equivalent of 60 mg of caffeine.

None of the above medicines contain caffeine in even this quantity.





### Using drugs indicated for specific infections carefully

Drugs like chloramphenicol and streptomycin are broad spectrum antibiotics, i.e., they are effective in treating several infections. However chloramphenicol is the only drug which is effective for typhoid. Similarly streptomycin is an important drug for the treatment of tuberculosis. Both chloramphenicol and streptomycin should be used only for treatment of typhoid and TB respectively. Misusing them for other diseases causes bacterial resistance. It also uses up the supply of these essential drugs, creating a shortage in the market. As a result these drugs become unavailable to patients who really need them.

### Choosing drugs which are relatively safe

There is some danger in using all drugs because all drugs are poisonous. Usually the recommended dosage for a drug is large enough for the drug to be effective in treating a condition, but is also small enough so that the poisonous effect in the body is within acceptable limits. In other words, the recommended dosage of a drug is usually such that the harmful effects of the drug are within safe limits.

Some drugs are however more harmful than others even when taken in the recommended doses. This is because a drug acts upon the whole body and not just on the part for which treatment is required. Oral contraceptives, the pill, for example are used basically to prevent ovulation, but the drug acts upon the rest of the body also and can produce a whole lot of problems ranging from headaches, nausea, weight gain to blood clots in the blood vessels.

Sometimes even a relatively safe drug if taken for a long period of time can cause serious harm. For in-

stance, aspirin is relatively safer than analgin, but if aspirin is given to patients who are already suffering from peptic ulcer or hyperacidity, it can aggravate the condition. Even in people with no such problems, if aspirin is taken for long periods of time, it can irritate the stomach lining and cause bleeding in the stomach. Paracetamol is safer than aspirin because it does not irritate the stomach and is safer to use for persons who have stomach problems. But if paracetamol is taken for long periods of time (more than a week), it can lead to liver damage and cause poisoning.

Aside from all this, some drugs upset the natural balance within the body. There are a variety of bacteria within the human body, some of which are helpful in the normal functioning of the body while others are harmful. Broad spectrum antibiotics however, kill all bacteria, even the useful ones, and as a result create some other health problem, especially fungus infection and diarrhoea. Moreover, these problems, which are very common in hospitals, are very difficult to treat.

As a rule tablets and capsules are much safer than injections because injections act faster. Injections can also cause hepatitis, abscess, precipitate poliomyelitis and sometimes cause damage to the radial nerve. Injections should be used only when a patient is seriously ill and should not be used routinely in situations where tablets can be taken.

### Choosing drugs which are easy to take

Usually children have difficulty in taking drugs. They either spit out the medicine, vomit it, or a big tablet get stuck in the throat etc. Adults too can have difficulty in taking medicines though this is related more to getting confused between the dosage and interval at which different medicines have to be taken.



For children, medicine in liquid form is the easiest to take. However syrups are also more expensive than tablets. One way in which health workers can deal with this problem is to make their own syrup. Injections should be avoided as they are painful, and should be used only when necessary.

In choosing tablets, it is better to buy those that need to be taken in smaller quantities. It is easier if a person has to take 1 tablet 4 times a day than to take 2 tablets 4 times a day or 1 tablet 6 times a day. The lesser the number of tablets that a patient needs to take, the better.

## Choosing drugs which are cheap

There are situations in which the drug which is most suitable from the point of view of effectiveness and safety is also the most expensive. For example, a person who has amoebiasis (Diarrhoea or dysentery because of amoeba) can be treated with metronidazole (flagyl) or diiodohydroxyquin (diodoquin) or iodo-chlorhydroxyquin (entero-vioform). From the point of view of safety and effectiveness, metronidazole is better but it is also more expensive.

Diiodohydroxyquin is not as effective, and if used for long periods of time can cause eye damage, paralysis and loss of bladder control. Iodochlorhydroxyquin can also be used but the risk of eye damage is greater. In fact this drug has been banned in some countries.

Metronidazole is therefore the drug of choice. But if a patient cannot afford it, and the health worker cannot provide the medicine free of cost, and as a result the patient may go without treatment, then it is better to use diiodohydroxyquin or to use metronidazole for a short time and then follow it up with diiodohydroxyquin. This is a difficult choice for a health worker to

make but unfortunately she will be forced to deal with such a situation. *Actually there is no reason for essential drugs such as metronidazole to be so expensive. This situation arises because of the drug policy of the government and the profit motivation of drug companies. It is a shame that poor patients are forced to take more dangerous drugs as a substitute for safer drugs because they cannot afford them*

So far we have discussed the ways in which health workers can choose appropriate drugs for their health centre. The ICMR, ICSSR report **Health For All** has suggested the following list of drugs which are essential at the community level. All the drugs mentioned in this list are generic name drugs (see page 228), and have been chosen according to the disease pattern in the country.

A health worker can use this list to prepare her own drug list for her health centre. She may need to change some drugs on this list. For example, if filariasis is not a common disease in her area, then she need not keep thiocarbamazine. Even though streptomycin has been recommended for the treatment of several other diseases besides TB we feel health workers should save this drug only for TB patients.

## Reducing the cost of drugs

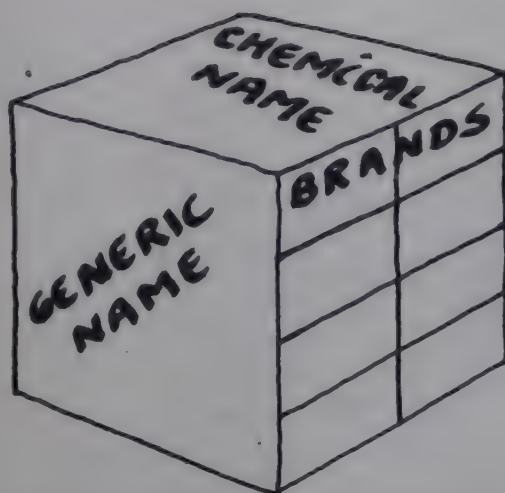
Even if health workers use drugs carefully and only when required, there are still many people who will not be able to afford the cost of treatment. In order to deal with this problem, health workers can make two important decisions, that is,



- To buy generic name drugs as far as possible
- To buy drugs in bulk whenever possible.

By implementing these decisions health workers can bring down the cost of drugs by 25-50%.





### Essential drugs needed at the community level

Name of drug	Use
1. Aspirin	As analgesic, as antipyretic, in rheumatic arthritis, etc.
2. Chloroquine	In malaria, amoebiasis, giardiasis, taeniasis (tapeworm infestation), in the acute manifestations of lepra reaction, etc.
3. Sulphonamides	In bacillary dysentery, urinary tract infection, meningococcal meningitis, chancroid, trachoma and inclusion conjunctivitis, etc.
4. Streptomycin	In tuberculosis, urinary tract infections, meningitis, bacteriemia and bacterial endocarditis, respiratory tract infection.
5. Penicillin	In respiratory tract infection, rheumatic fever, meningitis, osteomyelitis, otitis media, etc.
6. Thiacetazone	In tuberculosis
7. Isoniazid	In tuberculosis
8. Dapsone (DDS)	In leprosy, P. falciparum (malaria).
9. Piperazine	In roundworm infestation, also in threadworm infestation.

- |                            |   |
|----------------------------|---|
| 10. Mebandazole            | Anti-helminthic (effective against all types of worms).   |
| 11. Diiodohydroxyquinoline | In amoebiasis   |
| 12. Metronidazole          | In intestinal and hepatic amoebiasis trichomoniasis, giardiasis, etc.                             |
| 13. Ferrous sulphate       | In iron deficiency anaemia.   |
| 14. Vitamin A              | In Vitamin A deficiency, prophylaxis, etc.  |
| 15. Vitamin B Complex      | In generalised avitaminosis B, or deficiency of any vitamin of B-complex group as in prophylaxis. |
| 16. Thiocarbamazine        | Filariasis  |
| 17. Sulphur ointment       | In scabies, psoriasis, ring worm infestation, lupus erythematosus, etc.                           |
| 18. Oral rehydration salts | In dehydration.   |

These essential drugs are in keeping with the present disease pattern in the country but are available in very limited quantities. There is no official study estimating the actual requirement of these for the country as a whole.

Source : **Health For All : An Alternative Strategy** 1981

### Using generic name drugs

Most of the drugs in the market have three names, the chemical name, the generic name and the brand name.

**The chemical name :** Every drug has a main ingredient or chemical in it. The name of this chemical describes the structure and composition of the drug and is used only when studying pharmacology. These names are



Aspirin produced by Sarabhai Chemicals is called Kenalgesic.

Aspirin produced by Allenbury's is called Peradasin.

Aspirin produced by Dey's is called Majoral.

usually very long and difficult to remember. They are not used when prescribing drugs.

**The generic name :** Since chemical names are long and difficult to use, each drug is known by a shorter name which is recognized internationally. This is the generic name of the drug. The generic name also describes the main ingredient or chemical in the drug.

**The brand name :** Each drug is manufactured by several drug companies. Each company gives a drug its own name, which is the brand name.

For instance, acetyl salicylic acid is a chemical name. This drug is known internationally by the generic name Aspirin. Aspirin is produced by several drug companies and each company gives it a separate brand name.

**Why are drugs given brand names?** A particular drug company spends a lot of time and money in research and produces a new drug. This drug has a chemical as well as a generic name. The company that produced this drug now wants to sell it and make a profit for themselves. So the company gets the drug patented, which means that no other drug company can produce this drug for a certain specified number of years. The company also gives the drug a brand name and sells it under this name rather than the generic name. They do this so that doctors will get used to prescribing the drug under the brand name.

After a number of years when the patent expires, the drug can be produced and sold by other companies also. But by this time, doctors have already got used to

the brand name, so they continue to prescribe it. The other companies who now start producing the same drug, cannot use the brand name given by the first company, so they sell the drug under their own brand names. Since many companies are now producing the same drug, each company tries to convince doctors that the drug produced by them is better. They do this by adding other ingredients to the original drug and claim that this makes their drug more effective.

Or, they claim that their drug has been made in such a way that it produces the least toxic effect. Another argument often used is that the quality of their drug is better. In addition to all this, each company spends a lot of money on advertising and sales promotion.

Each company sends sales representatives to doctors (and now nurses also) gives them free drug samples and other 'gifts' and packs their drugs in attractive containers. The cost of all these sales techniques of course gets added to the cost of the drug, and so **drugs sold under brand names are much more expensive than drugs sold under generic names.**

Considering the rising cost of drugs many governments and international agencies are promoting the idea that brand names should be abolished altogether and that all drugs should be sold under generic names only.

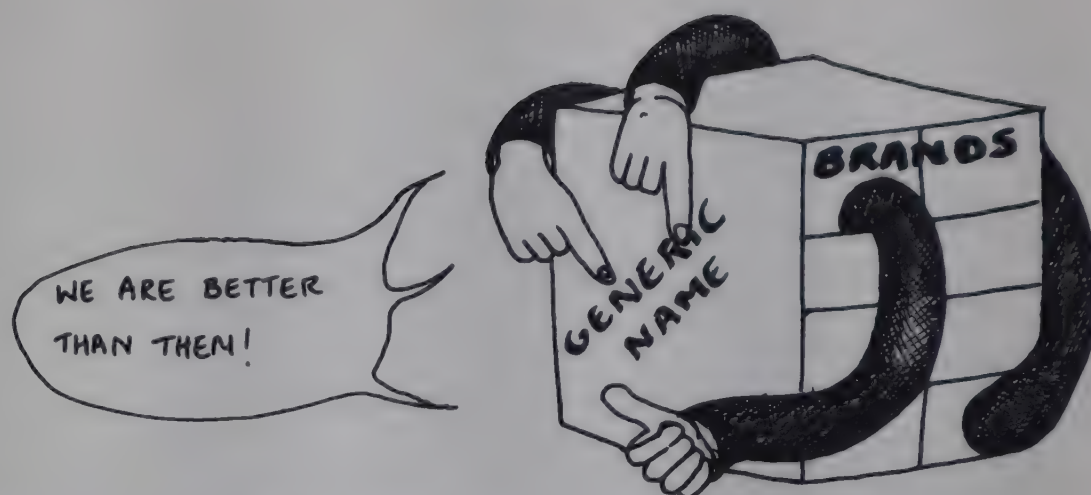
Drug companies are however doing their best to prevent this from happening because their profits will get reduced. If all drugs are sold under generic names they say there will be no way of distinguishing the drugs made by any particular company. Drug companies therefore put forward many arguments in favour of retaining brand names. It is important to understand these arguments so that health workers do not get



### Comparative prices of important products sold under generic name vs. brand name

Name of the Bulk Drug	Product marketed (name & composition)	Whether Generic Name or Brand Name	Marketed by	Price per Unit (Rs.)
Tetracycline HCl.	Tetracycline caps. (250 mg)	Generic	IDPL	0.479
	Achromycin caps. (250 mg)	Brand	Cynanamid	0.580
	Hostacycline caps. (250 mg)	Brand	Hoechst	0.488
Ampicillin Trihydrate	Ampicillin caps. (250 mg)	Generic	Smith Stani Street	0.994
	Ampillin caps. (250 mg)	Brand	Lyka	1.392
	Roscillin caps. (250 mg)	Brand	Ranbaxy	1.575
Chloramphenicol	Chloramphenicol caps. (250 mg)	Generic	Pharmakab	0.350
	Chloramphenicol tabs. (250 mg)	Generic	Mac Labs	0.294
	Enteromycetin caps. (250 mg)	Brand	Dey's Medical	0.351
	Paraxin caps. (250 mg)	Brand	Boehringer Knoll	0.350
	Chloromycetin caps. (250 mg)	Brand	Parke-Davis	0.390





confused by what the representatives of drug companies say.

### Bio-availability

Each drug company claims that the drugs produced by them have better bio-availability. Bio-availability of a drug is the rate at which a drug's main ingredients are released into the blood stream so that there is an effective concentration of the drug at the tissue level.

Even if two drugs have the same chemical ingredients, their effects in the body is not necessarily the same. The effect of a drug in the body also depends on the way in which it is made. The size of particles, colouring agents, packaging (tablet or capsule) and many other factors can change the bio-availability of a drug.

For example the same drug, made by three different companies A, B, and C can release the same total amount of the drug into the blood stream. But the drug made by company A may be released into the blood so quickly that it becomes toxic. The drug produced by company B may be released in the blood so slowly that it never reaches the level at which it has any effect. The drug produced by company C may be the best because it is released at the correct speed and can maintain its therapeutic effect for the optimum time.

As can be seen from this example, the same drug taken in the same quantity but produced by different companies can have different reactions in the patient.

Each drug company claims that the drugs made by them are superior in terms of bio-availability and toxicity. But **the fact is that bio-availability exists only with 42 drugs, many of which are not used at the dispensary level.**

Secondly, the companies which claim that their products have better bio-availability have no actual scien-

tific evidence to prove their claims. Moreover, even if their claims were true, bio-availability of a drug can vary from batch to batch of drugs produced by the same company.

### Quality of drugs

Drug companies claim that their drugs (with brand names) are superior in quality to the drugs produced by small manufacturers which are cheaper and sold under generic names. The drug controlling authority in the USA found that this claim was not true. Both generic name and brand name drugs showed equal percentage of inferior quality. A similar conclusion was reached by the Hathi Committee in India which investigated the matter thoroughly.

### Difficult names

A favourite argument of drug companies is that generic names are longer and more difficult to remember than brand names. According to them, doctors find it easier to use brand names. An average doctor can remember the name of about 100 drugs along with their recommended dosage. It would surely be easier for doctors to remember 100 generic name drugs than thousands of brand names with all their different dosages.

Further, during medical college all doctors are taught pharmacology using generic names of drugs. All legitimate sources of information of drugs (text books and medical journals) also use only the generic name of the drug. If doctors continued to use these names when they start practicing, there is no reason for them to have any difficulties in remembering the generic names.

The Indian government had set up a Committee in 1975, the Hathi Committee to investigate these claims



of the drug companies and make recommendations so that the drug situation in India could be improved. The Committee recommended that several harmful drugs should be banned and that the government should slowly switch over from the use of brand name to generic name of drugs. But the fact is that even after so many years the government has made a very half-hearted attempt at implementing these recommendations. This is because of the pressure put by the powerful drug industry which is controlled mainly by multinationals.

To sum up, there is no advantage in purchasing brand name drugs. The claim made by drug companies in favour of brand names are not really true and only confuse people. It is much better for health workers to buy generic name drugs which are good, and much cheaper.

### **Buying drugs in bulk**

A single dispensary or health centre does not need to purchase large quantities of any drug. But several dispensaries will require the same drugs in large quantities. If a group of dispensaries in a region get together and estimate their drug requirements for 3 to 6 months, they can buy drugs in bulk. Bulk purchasing has the following advantages:

- drugs can be bought from a wholesale chemist whose prices will be lower than those of a retail chemist
- the dispensaries will be in a better bargaining position when they buy in bulk
- packaging costs for large quantities of drugs will be lower than for small quantities.

232 Bulk purchase of drugs is therefore a good way to reduce costs. However someone will have to take the

initiative of contacting nearby dispensaries, calculating drug requirements and organizing the purchase and distribution of drugs. Dispensaries will also need money to buy larger quantities of drugs.

### **Giving patients complete instructions regarding use of drugs**

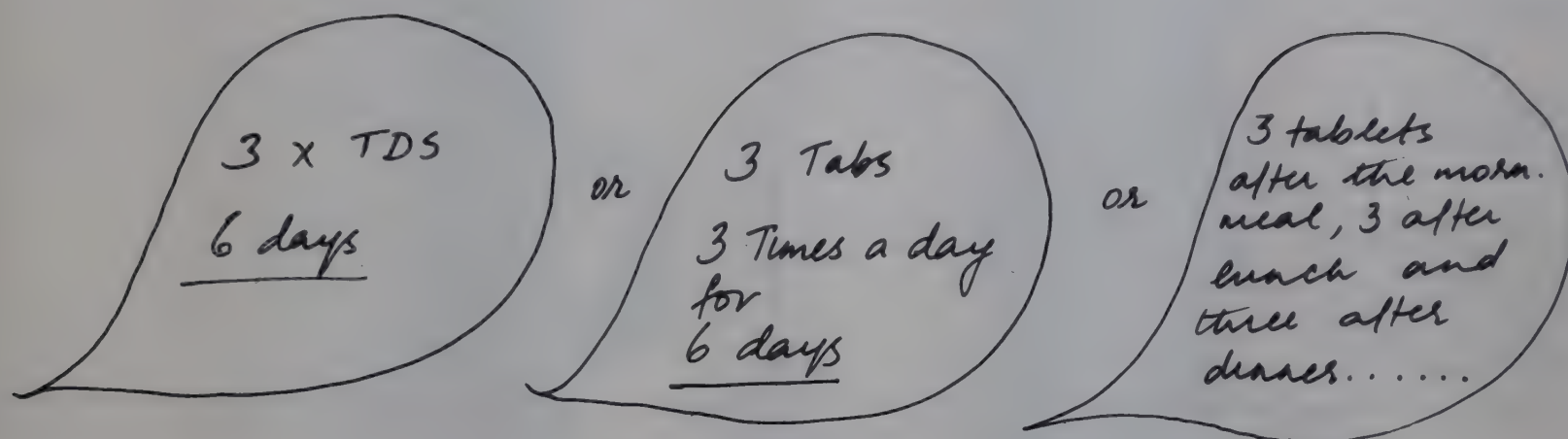
As already pointed out, drugs are often misused because a person may not know how to take the drug properly. Sometimes people have a lot of questions about how a drug is to be taken and it is important that health workers take time to explain properly. Also people are likely to use a drug properly if they understand how the drug works and why it is important that they follow instructions carefully.

### **Explaining how a drug works**

It is relatively easy to explain how a drug against worms works by telling the person that the drug kills the worms in the stomach. Worms are large enough for people to see for themselves, and the drug is merely like a poison which is strong enough to kill worms but not harm the person.

It is more difficult to explain how antibiotics kill germs because germs are not something that people can see. However, the health worker can explain that there are a variety of very small living things (organisms) in the human body, which cause disease in people only when they multiply and become very large in number. Normally the body prevents them from multiplying but when persons are weak or undernourished, these small organisms get a chance to multiply rapidly and cause disease. The drug (antibiotic) is then needed to kill these organisms.





### Explaining the need to take the proper dosage at regular intervals

Health workers need to explain that it takes some time for the disease producing organisms to be killed, usually a few days (the duration of the course of the drug). Each tablet or capsule contains only a certain amount of the drug (poison) and its effect wears off after a few hours. If the drug is taken at regular intervals, a certain amount of the drug is constantly in the body and in this way the organisms can be killed completely.

Usually in a day or two, the person begins to feel better but the organisms are not necessarily killed in this time. If the person stops taking the drug before the organisms are fully dead, the disease can return. Also, if the drug is taken in incomplete doses, the organisms get used to the poison and stop getting affected by it after some time. The disease then becomes dangerous and stronger drugs (poison) will have to be used to kill the organisms.

People also need to be told that it is dangerous to take more than the required dose of a drug. Since all drugs are poisonous, drugs taken in larger doses than recommended can poison the human body as well.

In addition, health workers need to give precise instructions regarding dosage, intervals at which the drug is to be taken, and for how many days. People may not

understand terms like '4 times a day'. It is better to say, take one tablet in the morning, one in the afternoon, one in the evening, one at night etc.

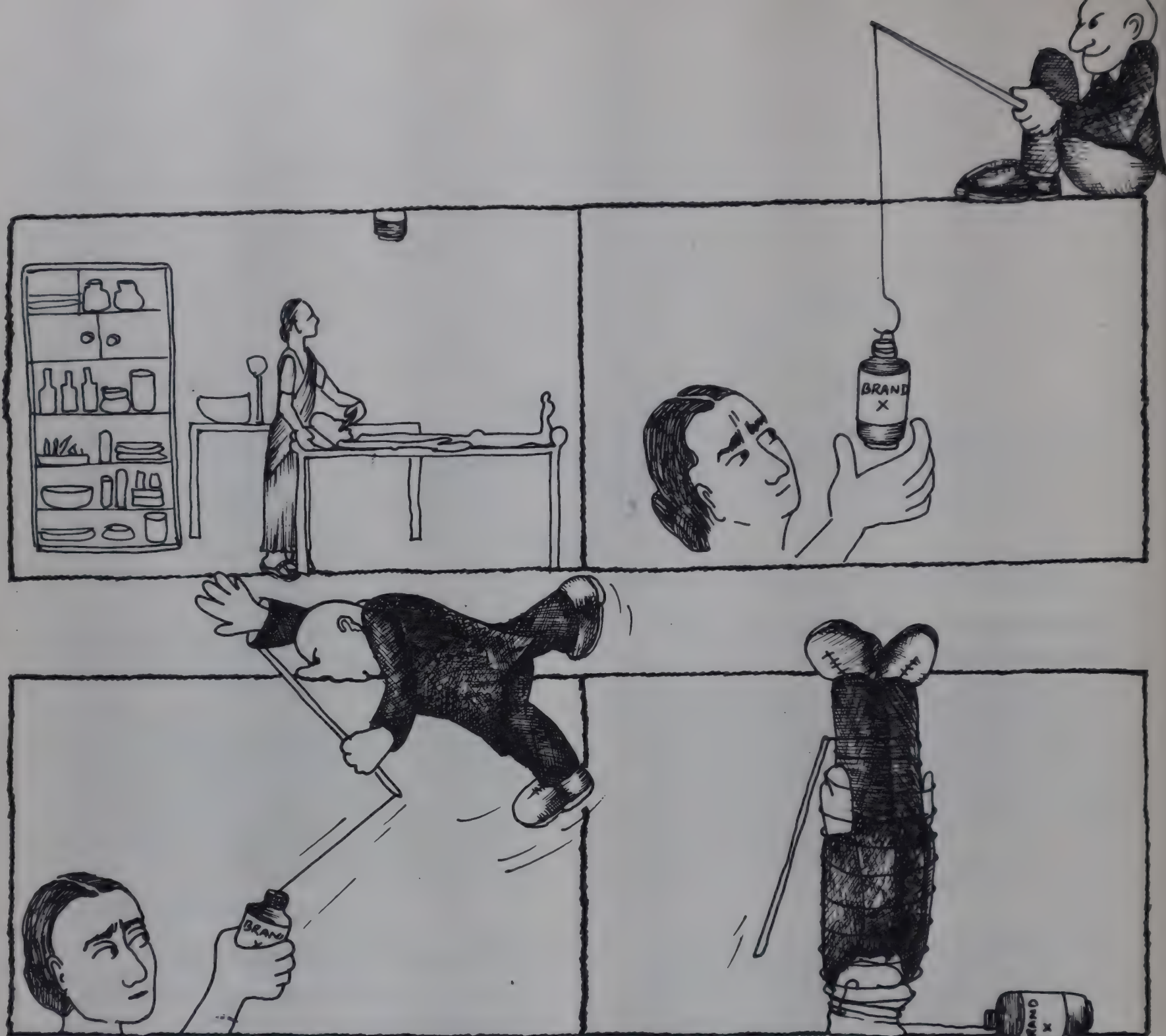
Health workers also need to find a way of ensuring that liquid medicines are taken in the right quantity. People may not have a spoon at home, and even if they do, it may contain more than the required amount. A health worker will need to find out how people measure very small quantities of liquid — the dai or local healer may have some suggestions, and some commonly used way will need to be found.

### Explaining the side-effects of drugs

Health workers should tell people the possible side-effects of the drug that she has given and warn them to stop taking the drug if they have any serious reaction. If a drug is to be taken before meals, along with or soon after meals, this should also be carefully explained. Patients should be warned that it can be dangerous to drink alcohol when taking some drugs. For example, if aspirin is taken with alcohol, it can cause severe burning in the stomach. Metronidazole if taken with alcohol can cause severe nausea.

Before a patient leaves the health centre, the health worker should make sure that the person has understood all instructions, properly. If necessary, she should make the person repeat all instructions so that there is no doubt.





## Conclusion

In this chapter we have looked at some of the reasons for the overuse and misuse of drugs and pointed out how such practices harm the health of people. Some suggestions have also been given on the way in which health workers can overcome these problems.

A health worker may not be able to implement all these suggestions, considering that all the essential drugs are not always available. It may also take time for a health worker to make people realize that drugs are dangerous or that injections are harmful.

However her effort should be to use drugs as rationally as possible and to encourage such an attitude among the people with whom she is working. She should also do her best to resist the attempts made by drug companies to promote their products.

Ultimately essential drugs will be available to everybody only when all health workers, wherever they are, attempt to change their prescription practices and refuse to purchase drugs which are harmful or unnecessary. It is only through such efforts of each health worker that a change can be brought about in unethical medical practices.





In this section we have seen how health activities are designed to deal with immediate health problems and do not deal with the various inter-related factors that go into producing health problems in the first place.

In fact, the limitations present in health activities are only a reflection of the limitations of the modern system of medicine, which we discussed in Section II. This system of medicine has till now not developed a way of dealing with health problems at the social level.

Yet, there is no escape from the fact that disease is a product of the way in which society is organized and a real improvement in health can only take place if measures are taken to deal with disease at this level also.

It is this reality which becomes the biggest challenge for health workers who are concerned about the health of people in rural areas. On the one hand they see the limitations of carrying out health activities without getting involved in attempts to bring about social change. On the other hand they realize the limitations placed on them by their training in getting involved with social issues.

The next section looks at the way in which some health workers have attempted to face this challenge and evolve a new role for themselves.



## SECTION IV : INTRODUCTION



If we accept that disease is a product of the economic, social and cultural environment, then clearly it is necessary to change this environment to bring about a long term improvement in health status:

In the context of rural areas this means that disease and illhealth are a result of poverty and exploitation. More specifically, it is the result of disparities which determine the standard of living, level of nutrition and access to facilities like clean drinking water and medical services. These disparities also determine the extent to which people feel they can control the course of their lives. From this point of view, then, diarrhoea deaths are primarily caused by poverty and exploitation which lead to undernutrition; social customs which prevent lower caste people from using sources of clean drinking water; poverty which again prevents people from using a 'simple' technique like the rehydration drink; and social control by the powerful, which creates a helplessness among the poor to change any of these conditions. It is a change in each of these conditions which will be necessary to bring about a long lasting reduction in diarrhoea deaths.

Modern medicine at present does not give due importance to these aspects of disease. In fact it creates the myth that disease can be controlled at the individual or intermediate level. In other words, it creates the myth that the health status of a population can be improved without bringing about a change at the social level. The solutions proposed by modern medicine are therefore both short-sighted as well as in the interests of powerful groups in society. In working from this view point, the practitioners of this system of medicine bypass those whose health problems are the greatest and who are also the most helpless to bring about an improvement in their health status.

A wider understanding of the causes of disease and the limited role so far played by modern medicine in dealing with it, shows that the focus of health work will need to change. Similarly, if health workers are to deal with disease and sickness then their role will have to change too. It will mean that a health worker working in a rural area will need to spend a major part of her time in the village understanding and dealing with the root causes of illhealth rather than in the dispensary treating patients who come as and when they fall ill. Treating patients may cure them for the time being but it will not prevent them from falling sick again. After taking their medicines from the dispensary, they go back to the village and back to the daily struggle for survival, the same unhealthy surroundings and the same social conditions which made them diseased in the first place. Further, almost 75-80% of the patients who come to the dispensary, suffer from diseases which are directly or indirectly caused by lack of





food and or clean drinking water. In this context, treating disease in the true sense would mean actively doing something about these causes of disease also.

In the village, the health worker will need to identify and work with those groups of people who are the most oppressed, because it is these groups who are constantly in danger of falling sick. Since poverty and exploitation are the root causes of illhealth, she cannot remain 'impartial' and 'neutral' in her interactions with people. She will need to make a definite choice about whom she is going to work with—the rich or the poor.

Once the health worker has decided which group in the village she wants to concentrate on, she will need to work with all the people in that group. She cannot restrict work to few individual families in this group, since everybody in the group lives and experiences the same social and economic conditions which affect their health. It is not in the power of a few individuals to bring about a change in these social and economic conditions. The strength of the poor lies in their numbers. Only by developing a common understanding of the reasons for their oppression and developing their collective strength can people experience power and begin to exercise control over their lives. The health worker needs to make use of every opportunity to widen people's understanding and to help them develop confidence and courage.

Along with people she will also need to make use of all resources available at the village level, be they in terms of money, materials, labour or technical skills provided by the people. The health worker will also need to make use of government resources which are available for village people through the block development office and primary health centre. Trying to obtain these resources will be part of the process of developing people's understanding of their rights and collectively demanding what is due to them. Helping them to come together, take decisions, and experience their power as a group now becomes the ultimate aim of the health worker. In keeping with her new role, the health worker will feel the need to acquire different kinds of knowledge and skills in addition to those she now has. Working with village people requires sensitivity and an ability to relate to people. It also requires certain skills such as asking the right questions, collecting and recording information systematically, getting together people for common actions and developing people's decision-making capacity as a group. This section aims to give the health worker a broad understanding of what she can achieve in her new role by drawing upon the experience of health workers who are working in this direction.



# 1 : Choosing villages to work

One of the important changes in the health worker's role is that she now works towards improving the health status of a group of people rather than concentrating on individuals as and when they fall ill. Along with the people in the village, she attempts to identify the social causes of disease and finds ways of dealing with the problems of illhealth. This means that she spends a substantial part of her time in the village getting to know people, understanding their way of life and also understanding the complex interrelationships that exist between them. All this necessarily places a limit on the number of villages in which she can work. This is because she needs to visit **each** village that she works in regularly and frequently (at least once a week). Moreover, she needs to make these visits at a time when people are available in the village and have time to talk to her, which is usually in the evenings. So, the health worker will have to re-organise her working hours to make time for village visits. Experience has shown that a health worker can usually work in 2 or 3 villages. She can do this by continuing to work half-day in her institution (dispensary, health centre, hospital) and by making village visits in the late afternoon or evenings. However each health worker will have to decide the number of villages that she can work in. More villages can be taken up if she is working in a team with other health workers, rather than on her own.

Since the health worker is undertaking village work in which she has no experience it is important that she choose her first few villages carefully. If she starts working in villages where she faces relatively less problems and sees some impact of her work, she will gain confidence to take up further challenges. This chapter discusses some of the points which can help the health worker in selecting villages so that her chances of success are greater.

## Location

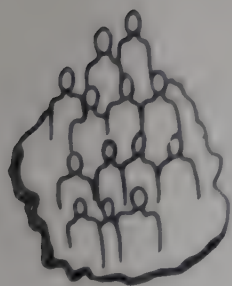
Most health workers are already working in an institution such as a rural hospital, dispensary or health centre. It will therefore be realistic for her to select villages within a short distance of her institution. Since she will be visiting these villages regularly and frequently, she should neither spend a lot of time, nor a lot of money in travelling. Preferably she should choose villages within walking distance or which are easily accessible by a cheap and frequent public transport. The health worker should also choose villages which can be reached throughout the year, especially if she is in an area where villages get cut off from each other for several months during the monsoons.

Another important point to keep in mind while studying the location of villages is to see that all chosen villages come under the same development block. This is because all government facilities for rural development are channelized through the Block Development Office and are available only to the villages in that block. If during the course of her work, the health worker wants to help people make use of these facilities she will need to approach only one Block Development Office (B.D.O.) to obtain help for all the selected villages.

## Population

Since the health worker is going to be concentrating her energies on a few villages, she should take care to select villages whose populations are neither too small nor too large. It is not worth spending so much time and effort working in villages which have a population of just 100 or 200 people because too few people benefit from the effort which the health worker puts into the work. On the other hand, it can be difficult to work with a village which has a population of more





than 1,500 people. In such a large village it is difficult to maintain contact with all the families. There are greater chances of the village being divided into two or three rival groups and the health worker may find it difficult to bring people together for common action. From experience, health workers have learnt that it is best to work in villages with a population of around 1000 people.

In estimating the population of a village it is important to remember that the same village can have several hamlets which are at some distance from each other. It is easy to confuse these hamlets as separate villages. For example,

In Bihar during the drought relief work, a team of health workers used to visit, every week, a small village of thirty houses inhabited by non-tribal Hindus. After about three months, the health workers, during one of their weekly visits, missed the small path they usually took to reach the village. They asked some tribals working in the nearby fields directions to the village and were shown another path which they were told would take them there. When the health workers reached this village, they could not recognize it. It was a tribal village with the same name as the one they had been visiting. When talking to the people of this village they learnt that the village had, in fact four hamlets, separated from each other by 3-4 furlongs. Each hamlet was inhabited by either tribals, Muslims, Hindus or Christians. Uptil then, the workers had been visiting only the Hindu hamlet of the village and the people of this hamlet had carefully avoided talking to them about the other hamlets of the village.

It is easier to work in villages where the houses are not scattered over a very large area, as happens sometimes in certain tribal villages. In such villages it takes a lot of time to contact more than a few families at a time. But if the health worker has chosen to work in a tribal area this problem needs to be accepted as part of her work.

## Economic situation

The health worker's aim should be to work with people who need her services the most. She should therefore choose villages which have a large percentage of marginal farmers or landless labourers, or where the majority of the people are poor artisans. Sometimes, the people of a village may repeatedly request the health worker to work in their village. In such cases too, the health worker should find out whether the village is a needy one, and really requires her help or not. For instance,

Two health workers had carefully chosen one village 13 kms away from their health centre to do intensive work there. They visited this village once every week and had begun an MCH programme with the help of an ANM from the government sub-centre nearby. News about their work began to spread. One day, a few leaders from a nearby village approached the health workers and requested them to begin working in their village too. "We will help you in whatever you want; please come", they said. But the two health workers refused politely. They did not go to that village. They knew that almost every family in that village was well-off. They had enough land and the land was fertile because a stream passed near-by and the people were growing 2 or 3 crops per year. Most of the families



also had cattle. The health workers felt that their priority was to help the poorer villages in their area. The well-off people could make use of their services if they wanted to but they would not go out of their way to help them.

In some parts of the country, the high caste well-to-do families live in a separate village. Similarly, some villages might have a large number of traders who do business outside the village. It may not be worthwhile working in such villages because these people have access to facilities and they are also likely to be in a better state of health.

### **Facilities available**

A health worker should carefully study the facilities available in the villages which she wants to select. If a particular village already has a government sub-centre with an ANM posted there, it may become difficult for both health workers to function in the same village. The aims and objectives of one health worker may contradict all that the other health worker aims to do. It would also be an unnecessary duplication of some services.

The presence of certain facilities in villages can give an indication of the economic and social status of its inhabitants. For instance, it is usual to find a primary school in villages, but if a village has a secondary school, high school or technical school it may indicate that the village has a number of families who are able to afford higher education for their children. It may also indicate the presence of some powerful and influential people in the village who are able to obtain such facilities for the village.

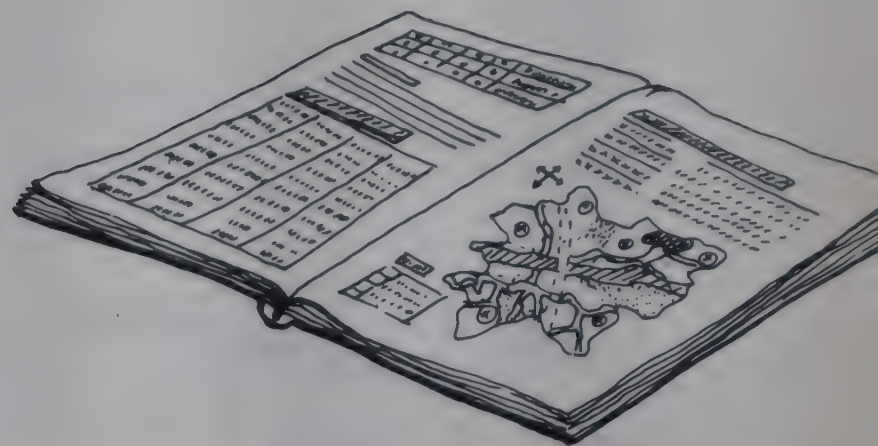
Facilities such as railway stations, frequent bus services, tarred roads usually indicate that the villages in the

area are being economically exploited for their natural resources such as timber, coal or minerals. The presence of these facilities also indicates that the village is subject to a lot of external influence. In such villages people are likely to be more competitive, ambitious and imitative of the urban way of life. The inter-relationships between people in such villages will be very different and there may be very few issues on which people are willing to come together.

### **Willingness of people to co-operate with the health worker**

This is the most important point to be kept in mind while selecting villages. It may take several visits to a village for a health worker to judge people's attitude towards her and the work she intends to do. Villages have a few officially appointed leaders like the Sarpanch, Up-Sarpanch and Panchayat members. When the health worker visits a village for the first time, she needs to find out who these leaders are and should make an effort to meet them. It is socially unacceptable for outsiders to visit people in the village without meeting the leaders first. When meeting these leaders, the health worker will need to introduce herself and to give a reason for her visit. She could say that she would like to do health work in the village and would like to meet other people as well. Even in later visits the health worker should meet these leaders and discuss health problems she has noticed and other general matters of the village. These conversations are important, because they help her to judge whether these leaders are likely to be interested in the welfare of the village. Normally the leaders welcome outside help in the beginning. However, sometimes the health worker may come across leaders who are suspicious of all outsiders and show indifference or displeasure and may





even be rude. It is better for the health worker to stop visiting a village where the leaders are clearly antagonistic towards her right from the beginning because she will be unable to do anything there. However, the health worker should be aware that even the leaders who welcome her in the beginning may become antagonistic if they perceive her work as a threat.

During her visits, the health worker must try and meet as many people as possible in the village. Again, she would need to explain the purpose of her visit to them. Since she will not be able to meet more than a few families in the first visit, her aim should be to meet all of them in her subsequent visits. When meeting people, she should encourage them to talk about themselves, their families and their work. After several visits, the health worker would be able to assess whether the majority of the people are welcoming, indifferent or frankly antagonistic towards her.

In the course of her visits, the health worker needs to observe if there are any obvious conflicts in the village. For instance, she might find that the two big landlords in the village have a long-standing family quarrel and the whole village is divided in its support. In a situation like this, it will be difficult to get most of the people to come to a common agreement on important matters. There could also be major conflicts in the village because of different religions, political parties and castes. Conflicts arising out of such differences can be a problem for the health worker.

It is also better if the health worker chooses villages in which she or her institution has not had any previous contact. If the health worker has been engaged in any activity (such as free curative services, feeding programmes etc.) in which the people have become accustomed to perceiving her as 'giver', then it

will be very difficult for her to alter the basis of her relationship with them. It will be easier for her to start working in villages where people do not have predetermined expectations of her.

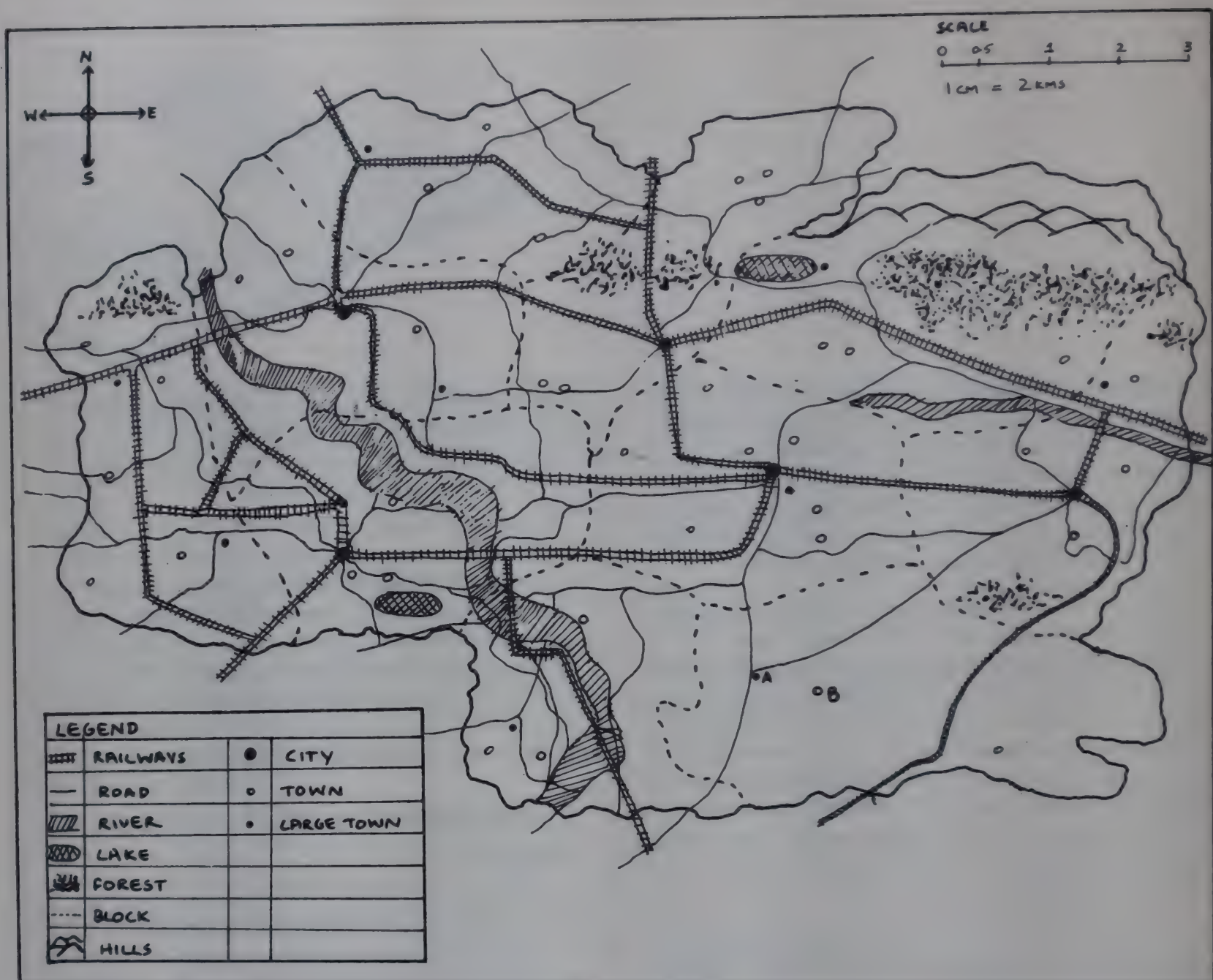
To sum up, a health worker needs to select a few villages near her institution for doing intensive health work. These villages should be selected carefully after studying the location, population, economic situation and available facilities in the village. Above all the people should be willing to co-operate with her. While it is not possible to find an ideal village, her attempt should be to select villages in which there are likely to be fewer problems, at least to begin with.

## Collecting information to choose villages

In order to select villages on the basis of the above criteria it would be helpful if the health worker starts by making a good map covering an area of 15-20 kms around her health centre. This map can be obtained from the Block Development Office or from the district census book, which is also available from the Block Development Office. On this map she can mark out state, district and block boundaries, villages, village roads, railways, forests etc. She can also mark the main facilities existing in the area, such as health and educational facilities, railway stations, bus stands and post offices.

From the census book she can find out the population of the villages given in the map. The information given in the census book may be a few years old since the census is done once every ten years (the last census was done in 1981). The population given for each village may therefore need to be updated. This can be done using the growth rate of 2.5% per year which is





**Fig. 1**

A map is a drawing of a specific geographical area. Maps show important details of an area such as the natural landscape (rivers, hills, forests, lakes), communication system (highways, roads, railway), human settlements (villages, towns, cities) and finally, the political boundaries that divide an area into panchayats, blocks, districts etc. These will be marked on the map in the form of symbols. The meaning of each symbol will be given at the side of each map. The smaller the area that has been drawn, more will be the information that is available from it. Thus the map of a panchayat will contain more details about the different villages in

the panchayat and the facilities available in each, as compared to the district map.

A good map is always drawn according to scale. A scale shows the relationship between the length of a line on the map and the length of that line on the actual ground. For example, the scale of the map in figure 1 is 1 cm = 2 kms. This means that a distance of one centimetre on this map, say from A to B, is two kilometres on actual land. The scale of a map is essential in finding out the real distance between two places shown on the map.



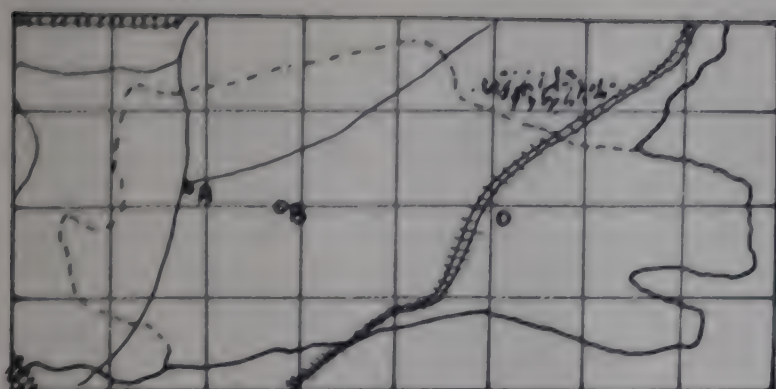


Fig. II

SCALE : 1 CM = 2 KMS

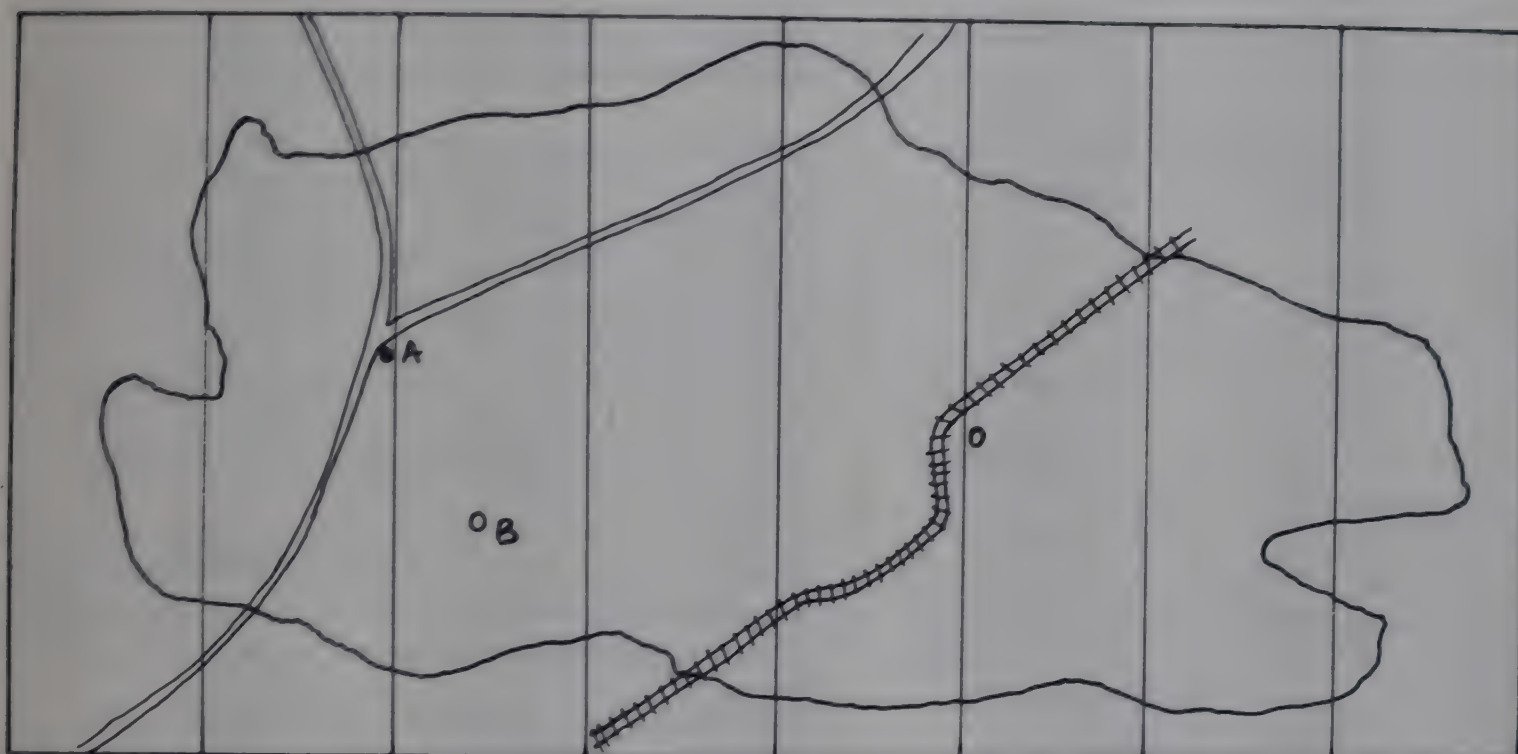


Fig. III

SCALE: 2 CM = 2 KMS

Maps usually have directions marked on them i.e. which side of the map faces the north, south, east or west. Knowing the direction on the map can be helpful to a health worker travelling in an area new to her. By estimating the direction on land (the sun rises in the east and sets in the west!) and by following the map, she will be able to know whether she is moving in the right direction or not.

Sometimes the health worker may be able to get only a very small map of the block from the Block Development Office. She may feel the need to enlarge it to get a clearer idea of the area shown on the map. She can enlarge her map in the following way:

First draw lines (in light pencil) to form equal squares over the map you want to enlarge, as shown in figure II. Then, draw the same number of squares, but larger ones, on another sheet of paper. Then copy the map square by square. You will now have an enlarged map as shown in figure III.

In this example, squares of 1 cm. were first drawn over the map, as shown in figure II. Then on another sheet of paper, squares of 2 cms. were first drawn and then the lines of the map were filled in accordingly. This gave us a map exactly double in size from the previous map. The scale of this bigger map is also different now. In this bigger map 2 cm = 2 km.



the annual growth rate of the Indian population at present. For instance, if she knows that a village had a population of 2,500 according to the 1981 census and she wants to find out the population in 1984 i.e. 3 years after the last census, she can calculate it like this :

$$\begin{array}{l} \text{Population as} \\ \text{per the last} \\ \text{census} \end{array} + \left[ \begin{array}{l} 2.5 \\ 100 \end{array} \times \begin{array}{l} \text{Population as} \\ \text{per the last} \\ \text{census} \end{array} \times \begin{array}{l} \text{number of} \\ \text{years since} \\ \text{the last census} \end{array} \right]$$

$$\text{i.e. } 2500 + \left[ \frac{2.5}{100} \times 2,500 \times 3 \right] = 2,687.5$$

*This calculation should actually be made using geometric progression. However, for the sake of simplicity we are suggesting that arithmetical progression be used. The difference obtained by using the two methods is not very much for a small population.*

The census book usually also gives some idea of the economic situation of each village. The cultivable land per village, the percentage of landless workers, unemployed persons, special industries and other such information can be got from the district census book.

Information regarding the government health facilities available in the area can be got from different sources. The District Health Officer or DHO can give the health worker the district map with the list of primary health centres and their sub-centres, as well as a description of the different programmes attached to them. He will also know about the future plans of the government in terms of providing health facilities in the district. The District Medical Officer (DMO) will have a list of hospitals in the district along with their facilities and staffing pattern. In some states, the DMO and DHO are

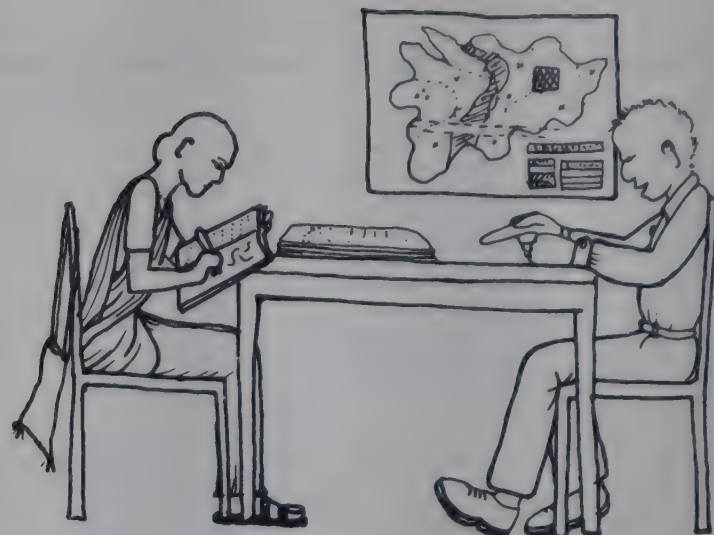
one and the same person, in which case all the information listed above will be available from the DHO.

Specialized programmes such as the Leprosy Control Programme, TB Control Programme, Family Planning Programme etc. usually have a separate person in charge at the district level. More information about each of these specialized programmes will have to be obtained from the person in charge (for example, the District TB Officer or the District Leprosy Officer). At the block level, the doctor in charge of the PHC will have information about the PHC sub-centres, dispensaries and the programmes being undertaken in the block by the PHC. The PHC doctor may also be able to give information about the disease pattern in the area. In fact, the health worker can get an idea of the disease pattern in the area from her own dispensary records.

Patients coming to the health workers' dispensary can also be a good source of information about the area. From them, the health worker can come to know the actual time it takes to reach the different villages, the frequency and regularity of bus services, whether there are any short cuts and whether a village is accessible throughout the year or not.

On the basis of all this information, the health worker can mark out on her map the villages she considers suitable to begin her work. If she wants to work in only two villages, she can start visiting two of the villages marked on the map. The purpose of these visits is to check out some of the information collected by her. The villages may be further away than what they appeared to be on the map, the population of the villages may have reduced greatly since the last census because of large scale migration, or newer facilities may have come up during the intervening time. The pur-





pose of these initial visits is also to meet as many people as possible, so as to assess their reactions to her taking up work in their village.

It should be remembered that all the above points should be used as guidelines rather than as rigid rules. A health worker may find herself in a situation where she may have to ignore some of these criteria because of certain special characteristics of the area in which she is working or because of her own special circumstances. The following example shows how a health worker managed to deal with the problems she faced in selecting villages to begin her work.

### **An example : Basia**

Geetha was an ANM working in a tribal area of Bihar. She was in charge of a dispensary which she kept open from 9 a.m. to 5 p.m., 6 days a week. A trained dai from a nearby village helped in the dispensary work and also conducted deliveries both in the dispensary and in the village.

After attending a training programme in rural health care, Geetha wanted to start working in a few villages. She discussed the matter with her superiors and said that since very few patients came to the dispensary, she could probably spend her time more usefully doing health work in the villages. At first her superiors were reluctant to let her close the dispensary even for one hour, but after several discussions it was decided that she could close the dispensary in the afternoons on Wednesday and Saturday.

Geetha was now free from 1 p.m. onwards, twice a week, so she decided to begin by selecting two villages. On the next half-day she went to the BDO in Sundarnagar to get information about the villages nearby. The BDO was not in his office that day, but with the help of

another official she was able to use the census book. Geetha found a map of Sundarnagar block in the census book. Unfortunately this map was very small, and she mentioned this to the official. He told her that they had a larger map of the block and pointed at the map hanging on the wall. Geetha looked at this map and discovered that it had all kinds of details on it which she did not understand. Finally she asked the official to help her in making a map of 10-15 kms radius around her health centre with only those markings which were necessary for her. On the map she now had, she wrote down the numbers of the villages. She noted down the corresponding name and population for each village from the census book. She also took down the following information from the census book.

The population in the area comprises :

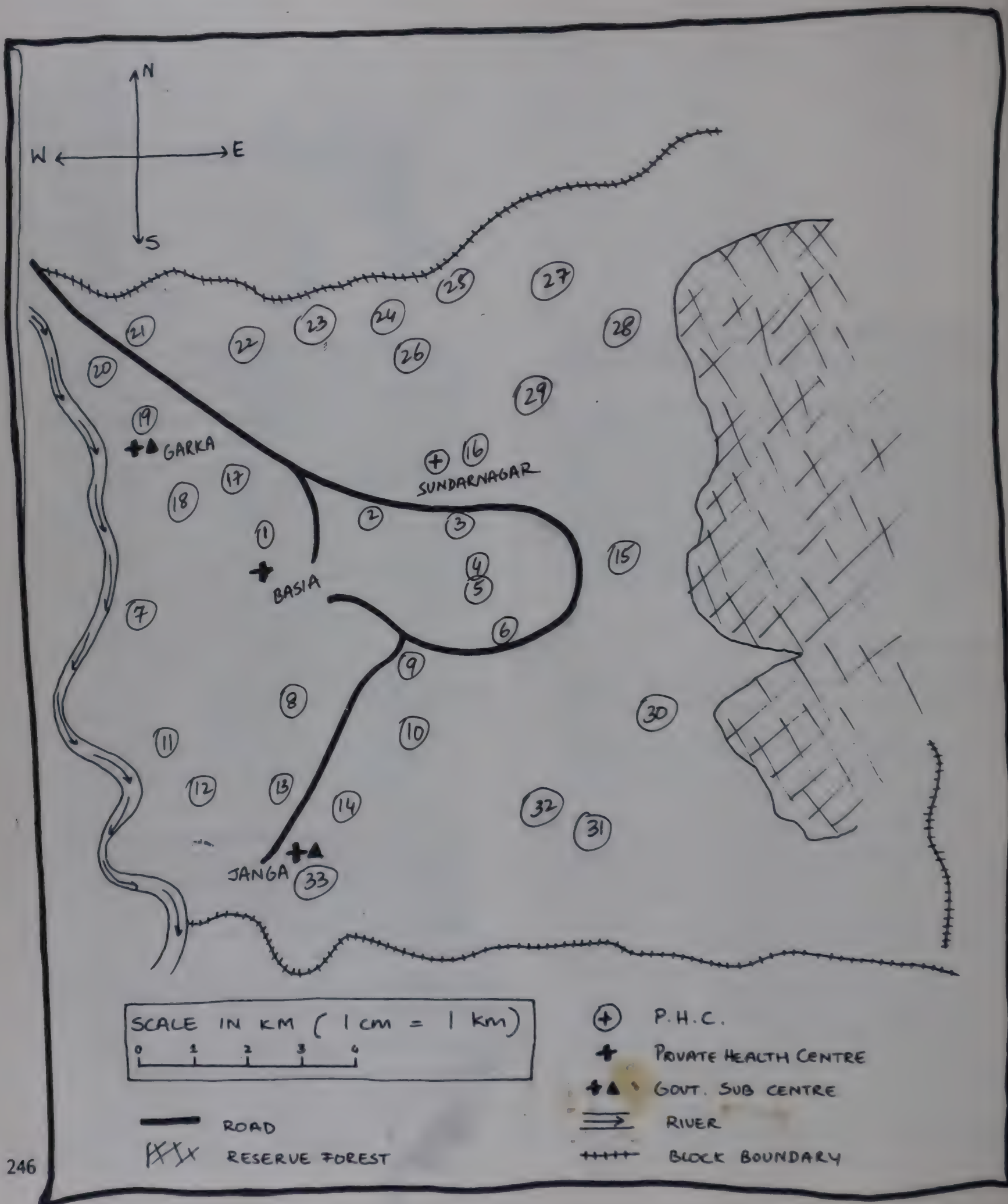
Hindus	85%
Muslims	10%
Christians	1%
Others	4%

Among the Hindus the dominant castes are Brahmins, Rajputs and Kayaskhars. In 1981, scheduled castes and tribes formed 44% of the population. In Sundarnagar block, more than 50% of the population is tribal and about 12% are scheduled castes.

She read all the information given about the economic situation of the area and took down some of the points.

The state of agrarian economy is poor yet 89% of Sundarnagar population depend on agriculture for their livelihood. According to the land settlement report the size of actually cultivated farm holding per family is 3.1 acres. However, economical size of land holding is









### Details of villages within 10 kms of Basia

Village	Population	Distance (kms)
Basia	432	2
1	616	1½
2	550	3
3	57	3
4	108	3
5	48	3
6	7	5
7	903	4
8	170	3
9	500	3
10	602	5
11	390	6½
12	138	7
13	84	6
14	6	8
15	598	7
16	1080	5
17	663	3
18	25	4
19	1756	5
20	67	7
21	770	9
22	152	8
23	866	9
24	92	9
25	248	10
26	100	8
27	240	10
28	119	8
29	289	7
30	757	12
31	678	10
32	168	9
33	1224	10

considered to be between 20-30 acres in this area depending upon the type of land.

In the absence of irrigational facilities only one crop is harvested. Major crops in this area are maize, pulses, millet and paddy.

There are a large number of seasonal agricultural labourers whose daily wages are Rs. 2.50 for men and Rs. 2.00 for women.

Forest products, timber felling and collection is another source of employment. Sundarnagar block in Rampur district is one of the important centres for timber trade. Collection-cum-extraction of oil and wine from Mahua flower provides self-employment to many during the lean months of April and May.

Since there was no industry in Sundarnagar block, Geetha did not take down the information related to this. She also wrote down :

Literacy rate is 15.1% in the district and 12.8% in the block. Though according to Government recommendations each village should have a primary school, this is not the case in Sundarnagar block. Also high schools are few and far from most villages.

Having got all that she could from the Block Development Office, Geetha made a trip to the PHC on another of her half-days. She met the PHC doctor and from him came to know that the sub-centres attached to the PHC are in Janga, Garka and Kukut. Two of these were on her map and she put a symbol (+) to indicate that these villages had sub-centres. She also took down the names of the ANMs who were attached to these sub-centres. She told the doctor that she was intending





to work in one or two villages near her dispensary, and asked him to suggest suitable villages.

The PHC doctor told her that the ANMs faced difficulties while visiting villages 7 and 11 and it would be good if Geetha would begin to work in these. Geetha then asked about the nearest referral hospital and inquired about the programmes being run by the PHC. By the end of her discussion she had come to know that the nearest referral hospital was the sub-divisional hospital in Waga, 50 kms away. Though the PHC was supposed to be running control programmes for TB, leprosy, trachoma and malaria, work was not going on very well because of a shortage of drugs and personnel. The only programme that the PHC was running continuously was MCH and Family Planning. Even here vaccines were sometimes in short supply.

Geetha looked through all the information she had collected this far. She realized that she needed to update the population figures that she had collected from the census book. Also, she did not know the distance of any of these villages from her health centre. So she made the appropriate calculation for the population and using the scale as a guide calculated the appropriate distances of the villages from her health centre. Geetha also asked the dai and some of the patients about distances and the way to reach near-by villages. She came to know that apart from the main road that ran through the block there were no pucca roads in the area. In fact most roads were little better than foot-paths. From her own experience she also knew that some villages got cut off during the monsoon because she remembered that very few patients were able to reach the dispensary during the rainy season.

248 Geetha now set about selecting two villages in which to start her work. She first made a list of villages which

were within 4 kms of her dispensary. She thought there was no use considering the other villages because it would take her too long to reach them. Her list contained 10 villages. She looked at the population for each of these 10 villages and realized that most of them were not very large. However, village numbers 3, 4, 5 and 8 had a population of less than even 200, so she struck them off her list. She also put a cross against village number 1 and Basia, because her organisation had been conducting a free feeding programme in these villages which they had suddenly stopped. However she thought she'd visit both of these villages because they were the nearest to her dispensary and their population was not too small. During her visit she realized that people still felt resentful about the feeding programme. Some even asked her if she was planning to restart it. Considering this, she thought it best not to work in these villages. This left Geetha with village numbers 2, 9, 7 & 17. Geetha then remembered that the PHC doctor had suggested that she take up work in villages 7 & 11. Village 11 was too far off. Village 7 was also a little far but it had a population close to a thousand and since the PHC doctor had also suggested it, she decided to visit it. From the patients she had already found out that this village could be reached by a shortcut and to her surprise she found that she reached it in less than one hour. She went and met the village headman. He was very polite and seemed to be co-operative. He answered her questions without hesitation, so she was able to check out some of her information about the village from the census book. He did seem a bit puzzled that she should want to find out about things like the crops grown and literacy in the village. However, Geetha told him she had asked about the crops because it would give her an idea of the staple diet, and as for literacy, she had asked because part of her work was to give health education. The





headman didn't seem to fully understand and said that no health worker had asked such questions before. All the same he seemed eager that Geetha should start some health programme in his village because they had no health facility nearby. Before she left his house, he asked one of the men to guide Geetha to the other houses in the village.

Geetha was a bit puzzled by this but soon understood the reason. In this village, the houses were very far away from each other. After visiting a few houses she decided it would not be a very good village to work in because it would take her too much time to contact everybody, more so because the population of this village was also comparatively large. However since the people seemed welcoming, she thought she'd come back here if she could not find another suitable village.

By now Geetha was feeling disheartened. She had already struck off seven of the ten villages near her dispensary and wondered whether she would be able to do village work at all. Some days later, with fresh determination, Geetha set out to visit the other three villages left on her list. On the way to these villages the dai told Geetha that village number 17 could be reached by a short-cut but it meant wading through a fairly deep stream. Most of the time the water was waist high. This village was obviously out. While visiting village number 2, Geetha ran into the ANM from the PHC. Geetha went along with the ANM to a few houses. The people didn't seem to be very friendly with the ANM and gave very vague answers when she talked to them about family planning.

Then Geetha tried talking to a few of them on her own but didn't get a very different response either. One or two people asked her whether she too worked with the ANM. Later Geetha asked the ANM how often she

visited this village and came to know that she came here quite often because it was close to the PHC. She had to meet her family planning targets! Thinking about this village, Geetha didn't feel very good about starting work there. From the little she had seen, people weren't friendly and she would have to spend a lot of energy convincing people that her aims and objectives of health work were very different from those of the government ANM.

This left Geetha with village number 9. This was right next to the main road and for some reason Geetha had not visited it till now. On the way to this village, she met one of her old patients from this village. So she started talking to him and told him that she was going to his village and might decide to start some health programmes there. This man started telling her about all the health problems in his village and even volunteered to take her to the village headman and introduce her to some other people. Geetha spent quite a lot of time talking to several families. During her conversation she asked some general questions about the number of families, main occupation of people, the main castes in the village and about school and other facilities available to them. She also came to know that though the main road was so close to the village it didn't really mean anything much to the village. Hardly anyone had any means of transport. The road was mainly used for carrying timber from the forest but this village was not engaged in this trade. Most people worked in agriculture. In all this, Geetha did not notice that it was beginning to get dark. She hastily prepared to get back to the dispensary. Noticing her agitation, one or two people offered to accompany her back to the dispensary. On the way back Geetha felt quite excited about this village. It was a little far but the people seemed very warm and friendly. Anyway she thought





that she'd visit it a few more times before making up her mind.

On her next visit to this village, she visited a few more families. She saw that even though the houses were a little far from each other, they weren't as far as in village number 7. This village could also be reached throughout the year. Besides, she learnt that none of the government ANMs came to this village as it was quite far away from their sub-centres. So Geetha decided to begin work in this one village and visit it once a week. This still left her with one free afternoon, but she thought she would see how she could utilize her time on that day.

Two weeks later, a few people came to visit her in the dispensary. Apparently news about her visits to village

number 9 had spread. These people were from village number 10 and had come to request her to also work in their village. Geetha told them that she would think about it and left it at that. Geetha knew that she would not be able to visit both villages on the same day. At the same time it seemed a waste of effort to go all the way to more or less the same place twice a week. She brought up this matter with a few families from village numbers 9 and 10. Someone suggested that she stay over-night in one of the villages. That way she could spend one day in one village and the other day in the other village. Geetha had not thought of this possibility and didn't seem too keen at first. She was also a little scared about spending a night in the village. However, since the people in both these villages seemed eager, she decided to discuss this matter with her superiors.



## 2 : Getting to know the village

Once a health worker has decided which villages she wants to work in, her next task is to develop a good understanding of village life. More specifically, she will need to know how the different groups in the village live and interact with each other so that she can understand the social conditions which are responsible for illhealth. This may require a special effort on the part of the health worker, since very often she comes from a different social, cultural and economic background from the people with whom she is working and is in a way an outsider to the village. A health worker can come to know a village well if she develops a close relationship with people—as someone who is interested in all aspects of people's lives and not as a health worker whose job it is to give medicines. People in turn will open up and share their lives with the health worker when they stop perceiving her as an outsider, as someone who 'provides' health care, and as someone who is to be feared and looked up to.

**In getting to know the village the health worker's aim should be to help people ask important questions about their lives.** Her aim is not to collect a whole lot of information as fast as possible so that she can plan her health activities.

A health worker can begin by observing some of the day to day activities of the people such as fetching water, firewood, working in the fields, cooking, looking after the children, grazing animals etc. In doing this, she can begin to form a picture of how people spend their time, the work done by different family members and some of the common practices related to each of these tasks. For instance, do most people take food and water along with them while going for work, or does someone take it to the fields, or do they come home to eat? Do people work continuously once they reach the fields, or do they rest in between?

Do people fetch firewood and water at particular times of the day? How much do they require for one day and how much time do they spend in doing this? Where do people store their grain, and how do they protect it from pests? These are small details which can help the health worker understand some aspects of daily village life.

The health worker will already have some information about the village from the census book, which she can now build on. For instance, from the census book she would know that in her village people belong to different castes, believe in different religions and earn their livelihood either through agriculture or some other occupation. In her village visits she can start identifying the caste, religion and occupation of individual families. Similarly she would know some of the facilities available in the village such as schools, dispensaries, bus services etc. She can discuss these facilities with different people in the village, find out which families use these facilities and peoples' opinions related to these. Later when she has a closer relationship with individual families, she can use the economic information given in the census book to find out which families are landless, which own land and how much, whether they have any source of irrigation or rely completely on rains, the number of crops grown by them each year etc.

Once she knows these basic facts about individual families the health worker can find out how these facts determine several other aspects of people's lives. For instance, many families in the village may belong to the low caste. Are these low caste families expected to live in a separate part of the village? Are they expected to engage in only certain occupations? Are they expected to observe certain social customs and behave in a particular way with the others (are they not allow-



ed to wear chappals, enter high caste households etc)? Are these families included in making decisions for the village? Are they represented in village organisations? Are there places in the village where low caste people are not allowed entry?

Are they allowed to take water from the village well or pump? Do they participate in village functions and festivals? How are the lives of low caste people different from the lives of those belonging to higher castes? Similarly, how does land ownership determine other aspects of people's lives? What does it mean for a person to own no land, some land, a large amount of land? Do farming practices change depending on land holding? Do small land owners have any irrigation facilities? How much does it cost people to use water from someone else's pump? Do small farmers own their own farming implements? What is the difference in the amount of produce per acre from a small farm and bigger farm? How much land is required to produce sufficient food for a family of six? How do people manage when the rains fail or get delayed? Are people with little or no land forced to migrate to cities in search of work? How does land holding determine people's standard of living?

In the course of her village visits the health worker will be able to identify some of the common health problems. She can use opportunities to talk to the village dai, the local healer, and over a period of time come to know some of the beliefs and practices related to ill-health.

In getting to know people, a health worker will come to know some of their hopes and concerns. It is important for her to remember that different groups of people in the village, will have different interests and she should make it a point to note these differences. For

instance, the educated youth in the village may have very different interests from those of them who are uneducated; the problems of landless labourers will be very different from those who share-crop or own land; women as a group may have special problems of their own. However, just because people have common problems it is not necessary that everyone will be equally willing to do something about them. Some people may be more willing to cooperate with others; some may be totally indifferent or pessimistic about the possibility of change, some families may not be on talking terms with others because of long standing conflicts. While making a note of people's concerns the health worker should therefore also try to find out how many people share this concern and are willing to do something about it.

Every village has certain people who are looked up to with respect and have a great deal of influence over other people. These are individuals whom people go to for advice and in times of trouble. For instance, the local school teacher or the retired postmaster may be looked up to as someone knowledgeable because he can read and write. When faced with family problems, women may value the advice of some older woman in the village. Every village also has some 'trouble makers'. These people tend to use every opportunity to create disharmony by spreading rumours or by encouraging people to pick fights. It is in the health worker's interest to identify these people because they can greatly aid or hamper her work in the future. These persons can also have a strong influence on people's opinions and play a vital role in the decision-making process in the village.

From the above discussion, the health worker would have got some idea about what she needs to know of village life. Her success in understanding the village will





depend upon the kind of relationship she has built up with people and the image of herself that she has projected. People are quick to sense a patronising attitude or a feeling of distaste or disapproval just as they are able to sense a feeling of genuine sympathy and concern. A health worker will need to be conscious about the way in which she is communicating with others. She will also need to be sensitive to people's feelings.

Since she comes from a different background, it is likely that some of her actions may not be in keeping with the social customs of the village. For instance, a health worker may sit under a tree to rest or casually pluck a leaf from it without realising that this particular tree is considered sacred; or she may continue to wear chappals when she enters a house; or she might praise the growth of a baby without realising people's fear that evil may come to the child because of this. Such mistakes are unavoidable but if the health worker senses that she has offended people, she must apologise and find out what offended them so that she does not repeat the mistake.

In talking to people, the health worker should choose an appropriate time to bring up a subject. People are more willing to talk about a subject when it is meaningful to them or at a time when they themselves are interested in it. For instance, it is much easier to discuss customs related to marriage or childbirth when such an event is taking place. The health worker may find out much more about people's feelings related to migration at a time when several of them are planning to migrate. Similarly, harvest time is a better time to talk about what people do with the grain produced. Bringing up a subject at such times also gives the health worker a chance to observe several things which people may consider unimportant.

To some extent the health worker's success in getting to know people also depends upon the type of questions she asks. For subjects that people talk about easily it is better if she asks specific questions so that she gets specific answers. If the health worker wants to know whether the village has been covered by the malaria programme, instead of asking a question like, "Is your village covered by the malaria programme?" or "Is the Government doing anything about malaria in the village?", it is better if she asks specific questions like "Did anyone come to spray your house in the last six months?" "Does anyone in the village keep a stock of malaria tablets?" Similarly, if she wants to find out whether share-cropping is a practice in the village, instead of asking, "Do people cultivate other people's land in the village?" she can find out the local terms used for share-cropping, and use this term to ask a specific question.

There are times when a health worker may want specific answers but the subject may be such that people are unwilling to give specific information if asked directly. Land-holding, terms of share-cropping, the practice of inducing abortions are examples of subjects where people can give specific information but are usually reluctant to do so.

Sometimes people may not give the correct information for some reason of their own. For instance:

In a village in Punjab, Family Planning workers had distributed condoms to all the families. In the follow up visits these workers asked the men in the village "Are you using the condoms we gave you?" Everybody answered, "Yes." Later a researcher went to the same village, to study the impact of the family planning campaign. He found that the contracep-



tives were not being used. On asking the people why they had given wrong information to the Family Planning workers, they answered "We did not want to be impolite. They had taken so much trouble."

There are times when a health worker may not get the information she wants because people cannot give any clear answer. For instance, she might want to know, if people eat green vegetables. It may not be possible for people to give a specific answer since most would be eating vegetables during the season when they are easily available. When asked for such information the usual response will be "sometimes" which doesn't tell the health worker very much. Or the health worker may want to know the selling price of paddy. Again it is not possible to give her a specific answer since the price of paddy is not the same throughout the year. Similarly, she may want to know the wages in the area. Once again, she will not get a specific answer because, different wages are given for different work. Wages also differ for men, women and children.

When the health worker wants to find out people's opinion about something it is usually better for her to ask several indirect questions rather than one direct question. When asked a direct question people may not want to give their real opinion. Or they may say something that they think the health worker wants to hear. For instance:

A health worker wanted to find out if people felt the need of a dispensary in the village. She asked a group of people "Do you think a dispensary is needed in your village?" Everyone nodded and said "Yes." They thought, if someone is willing to give services, why should they refuse.

A better way to get their real opinion would have been to ask a series of questions like "Where do you go when you are sick?" "How far do you have to go?" "Can you get medical help at any time of the day?" "How much does it cost you?" etc.

The health worker will therefore have to adapt or change her questions according to the response she gets. She will have to decide why she is not getting the information she wants. Her questions may be unclear, people may not have understood her completely, or they may be reluctant to talk. It might be worthwhile for her to ask the same question in a different way to make sure that she has got the correct information. If she senses reluctance, it is better for her to wait until a time when people will feel more free to talk.

It is usually difficult to get people to talk about sensitive matters such as unjust practices, family income, debts, etc. People are reluctant to talk openly about these subjects either because they are too personal or because they are related to power relations in the village.

As we said earlier, there are differences between people in terms of their wealth, power and influence. Some people will have more land, wealth and power than the others. These people will not like to reveal information about their wealth because they probably own more land than they are legally allowed to own. These people may also be lending money or grain to others in the village at higher rates of interest than allowed by the law. They may fear that if the health worker comes to know about this she may create trouble for them. People may also look upon the health worker with suspicion and wonder why she is interested in matters which are apparently not connected with health. Poor people in the village may not talk about these matters, but for different reasons.





They may have borrowed money from the landlord which they are not able to repay. They may have been forced to sell or mortgage their land; they may even have sold themselves and their children as bonded labour. Talking about their economic status may therefore be very painful to them. It may seem pointless for them to talk about a situation which they have accepted as hopeless and a part of their fate. They may also feel that the health worker will not be able to understand or help them in the face of the tremendous control a few people in the village exercise over their lives. There is also fear—fear that the landlord may think that they have complained about their working conditions to an outsider and may therefore harm them in some way.

For all these reasons, it is essential that the health worker spend time in building up a relationship with different people in the village. Ultimately, people will open up and share their lives only when they stop thinking of the health worker as an outsider or as someone to be feared and looked up to. Poor people especially will open up only if they believe that she is on their side.

**Getting to know people takes time.** The health worker's aim is not to collect a lot of information as fast as she can so that she can plan her activities, rather her aim is to understand the village and get people to ask important questions about their lives. Going around asking a lot of questions, doing a formal survey or writ-

ing down answers on paper in front of people gives the impression that the health worker wants to collect information for her own reasons. Rather than bringing her closer to the people, such methods only arouse suspicion and create distance. She should therefore try to get the information through conversations and discussions, at the appropriate time and in a manner which is both tactful and sensitive.

It will not be possible for a health worker to remember all that she has come to know or has discussed in the village. It is helpful if she keeps a notebook and notes down the significant details of each of her village visits when she gets back home. These may be certain events observations and important bits of information she has gathered. She could also write down in brief, important conversations, and her own thoughts and feelings about the village.

When keeping a notebook, the health worker must remember to keep a separate notebook for each village that she has selected. The first few pages of the notebook should contain all the information she had gathered before selecting the village. It should also contain her reasons for selecting the village to work in. After that she should make datewise entries of all her visits to the village. This notebook thus becomes her village diary. If she has been unable to go on a particular date, she should note this down and write why she was unable to go. Given below is a section of a village diary kept by Neela, a health worker and Charu a social worker.



## An example

Neela and Charu have been visiting village Deoli 2½ kms from their dispensary since February 1983. They go there once a week. Deoli is situated in Madhya Pradesh close to the Orissa border. It is on the banks of a small river, which is dry except in the monsoon. A highway and a railway line connecting Orissa with Madhya Pradesh is barely a kilometre away from the village. Some passenger trains stop at the Deoli railway station. A large part of the population of Deoli consists of agricultural labourers who also belong to the lower castes. About 15 families belonging to the upper castes own more than 90% of the land in Deoli. Silk weaving is an important industry in the village and is the main source of livelihood for 31 families. The total population of Deoli according to the 1981 census is 1,102.

Charu does not feel confident about writing the diary, so it is usually Neela who does the actual writing. But both of them discuss the visit after returning from the village before Neela makes the entries. The diary is written in Hindi. The following is a translation of eleven entries from March 22nd 1983-May 31st 1983.

### 22nd March

Reached the village at 2.10 p.m. We visited six families today. All of them were in the main street and had pucca houses. The Panchayat member was not at home. His wife told us that he had gone to Orissa and then went back into the house. She was very unfriendly.

The houses are clean inside but the children defecate outside on the street. We talked to the women in two houses about how this practice can spread disease. We also told them to keep their food covered. Next time

we go we should take our flashcard set on "Flies spread disease". Nobody was sick in any of the families we visited.

Everybody in Bhajancha's house was very happy. They welcomed us and gave us a few hot ladoos they were making. Bhajancha's son was coming home on a one month leave from Indore where he had a 'Sarkari' job. We came back at 5.30 p.m.

### 29th March

Reached the village at 2.45 p.m. Returned at 6 p.m. We visited 10 houses today. All of them were in the main street. We chatted as usual with the women. Only Kamati, Ramdayal's wife, really talked to us. She told us about her various aches and pains which had developed after she had a tubectomy 3 years ago, at the PHC, in Rana. She showed us the scar and asked us to give her medicines for her ailments. We promised to bring some medicines for her next time we came. We also explained to her that the aches and pains had nothing to do with the tubectomy but she was not convinced and gave examples of others whom she knew who had the same problems. During the conversation Kamati told us that the neighbour's daughter had come home for her delivery. We did not know that Tulsima had a married daughter. Tulsima looked so young and had a small child too.

We thought we would go and see the girl and examine her to see if all was well with her. But Tulsima told us we could not see her till after the child was born. We thought she was joking and laughed and asked why. But she replied very seriously that the evil eye would fall on her daughter since we were not from the village.

I was quite hurt but Charu accepted this much better than I did. She said that she had faced a similar reac-





tion in the village she had been working in while studying for her diploma in social work.

We saw two women washing clothes and vessels next to the well. The well had plenty of water but the women completed all their washing with just a bucket. The water had collected as a puddle around the well and the place was quite slushy.

We didn't give health education though we took our flashcard set, because the women seemed busy and were not very welcoming either. Went to Panchayat member's house. He had come back from Orissa but was very busy doing accounts. There were 4-5 men also with him. We wanted to go but he made us stay and drink tea.

On our way back we visited Bhajancha's house to meet his son. I didn't want to go because I was still feeling upset about Tulsima's reaction but Charu insisted that Bhajancha would feel hurt if we didn't go. They showed us the transistor his son had brought, but he himself felt shy to talk to us. We found out that he had a job as a peon in a government office at Indore. He had studied up to class X. His mother is busy making plans to get him married.

### 5th April

Went to the weavers street. All the women and children were busy preparing the silk — drying the silk threads, taking out the knots etc. The men were inside the house weaving the silk sarees. We came to know from the women that this is a traditional occupation and Deoli village originally consisted of a larger population of weavers. But in the last few years, as the price of silk went up and the demand for silk sarees decreased several weavers moved out of the village. The houses were dark and dingy but the looms were inside

and the men were working on them. We could barely see what was inside, it was so dark.

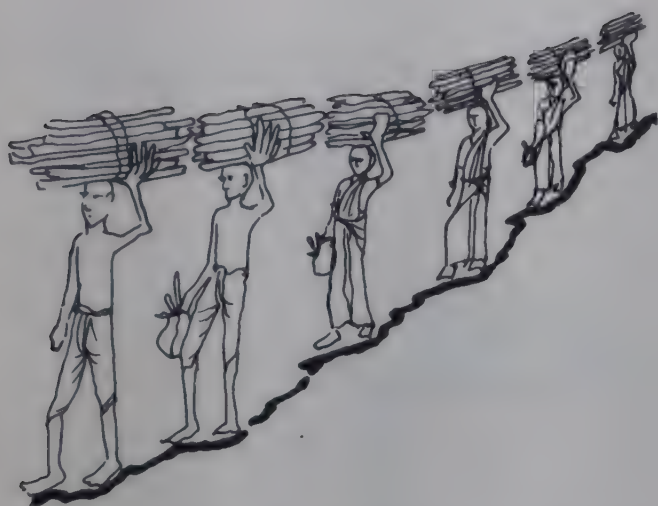
One woman gave us some buttermilk with salt to drink. Felt we were wasting their time. They were so busy. Maybe we should spend time in the evenings talking to them.

While we were leaving the village, a small boy came running to call us. He said someone was sick and took us to the high caste street to Dhulua's house. Dhulua is the Panchayat member's nephew. His wife Rasia was groaning with pain due to a finger-nail infection. There was a lot of pus and her whole finger was swollen and red. She also had fever. I asked for a sharp knife and after heating it in the fire for some time, cut and drained the pus and then bandaged it with some clean cloth. We asked them to send someone to our dispensary to get the medicines for Rasia. Dhulua asked us to bring medicines with us whenever we came. He said it would help many people if we did. We said we would think about it. Returned by 5 p.m.

### 12th April

Checked in on Rasia, finger healing well. Decided to visit Harijan basti today but we didn't meet anyone. The houses were shut. A few children were playing in the street, despite the heat. We asked an older child where everybody had gone. She said some had gone to the fields and most had gone to the forest. The children were very dirty with no clothes, matted hair and pot-bellied. As we were going back, we saw an old man, about 70 years, lying on a cot under a tree. He called out to us and made us sit on the cot. He told us he had retired from the Army. He had joined during World War II and had travelled in the North East Border areas. He remembered a few words of English and used them whenever he could. He asked us what we





were doing in the village and seemed happy when we told him that we wanted to work here. He said the Harijan basti was very poor and backward and required help. He invited us to visit his house next time we came. He said he was living with his brother because his wife had died and he had no children. He seemed to know a lot about the village. We should get to know him more. Maybe he will be of help to us.

On our way back we saw the Panchayat Member's wife standing at the bus stop. She greeted us before we came close and went out of her way to talk to us and be friendly. We were surprised to see this change in her. Charu thinks it is because she had heard about our treatment of Rasia's sore finger.

### 19th April

Visited Harijan basti in the evening today. The place was buzzing with activity. Women were cooking outside their houses and men were talking and smoking bidis in groups. The retired army man greeted us warmly and introduced us to the men around him. He asked his sister-in-law to prepare tea for us. We got one cup each while the army man, (whom the men called Subedarji) shared his cup with two others. We offered tea in our saucers to the other men but they refused. Chatted for some time with them. Told them we had come last week but basti was deserted. They said very little agricultural work was available till June so they had to go to the forest to collect firewood and then sell it in the town. They also collected some roots which the women were cooking now. We couldn't talk much with the men as Subedarji was constantly interrupting with tales of his campaigns in the World War.

There were a bunch of children around us wherever we went. The women were friendly and talkative.

Almost everyone was cooking the same thing — thick rotis made of millet and curry with the roots they had gathered in the forest.

We saw an old woman making plates out of leaves gathered in the forest. She said she could make 50 such plates in a day and got about Rs 1.25 for them.

There were chickens roaming about in every house. The women said they sold the eggs and got 20 paise for every egg. We told them that the nutrition from one egg was more than what could be bought with 20 paise and suggested that the eggs be given to the children who were obviously undernourished. The women said that the eggs would not be digested by the children since it was a "hot" food and these were summer months. More health education required for these women.

Everybody asked us why we had come. We told them we wanted to do health work and had already talked to the Panchayat member and other leaders in the village. They also asked us why we had not brought medicines with us then. Charu and I have to decide about this. Everyone is surprised that as health workers we don't have medicines with us.

All in all, a good visit. It's the first time we have visited the village in the evening. It was a good decision. We have also decided that three times a month we will visit the harijan basti and weavers who are free only in the evenings, and once a month we will visit the higher caste street during the afternoon when the women in those families are free. Since our aim is to work for the poor we have decided to concentrate our efforts among the harijans. High caste people are obviously well off because they have good houses and look better dressed etc, though they need health education.



The weavers must be also earning enough because they are weaving silk sarees.

### 26th April

Visited harijan basti again. Got a bit delayed because a delivery came to the dispensary. It was already dusk when we reached. Had to make the visit short because of this. Took some medicines with us for the first time. Two children in Dhunua's family had diarrhoea. Explained about OR drink to mother. She said she'd give it tonight but what about tomorrow when she'd be busy in the forest? She wanted tablets to stop diarrhoea once and for all. Explained about how OR drink was more effective. Suggested that she make the drink in the morning and leave it at home. Her older daughter could give the drink to the children while she was busy. Mother didn't look happy about this. Don't know if she'll do it.

Went to Godhua's house. There are many children in his family. Kishti, his wife, said she'd had 10 but 4 had died. She looks pregnant but we didn't ask her. This family seems very poor. The amount of food she was cooking didn't seem enough to feed everybody. Godhua's mother also stays with them. Kishti looks thin and weak. We didn't spend much time with her. She looked tired and unwilling to talk. Looked like she and the old lady had had a quarrel. Old lady complained to Charu about Kishti.

Met Subedarji. Had a crowd of men around him. All were discussing something seriously. He called out to us to join them. We asked what was the matter. He said yesterday some of the men had been harassed by the forest guards. Eight of them had been fined Rs.10/- each and their wood had been taken away from them. So today most of the men had not gone to the forest. The women had gone early to collect food from

the forest and had go back soon. But they didn't collect wood for fear of the officials.

They were discussing whether they should risk going tomorrow or whether they should give the forest ranger a bribe. We asked whether this was the first time something like this had happened. They said each year they used to give a bribe to the forest ranger but this year a new ranger had come and he was asking for double the amount. They had not paid the bribe so far, because it was too much for them. They were discussing with Subedarji if it was better to give the fine when they got caught by the officials.

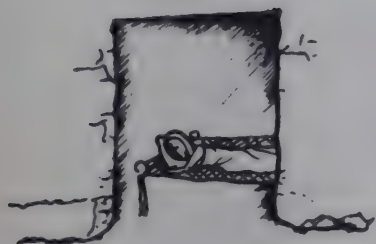
We asked why they needed to go to the forest when cutting wood there was illegal and the ranger was justified in fining them. The men said they had no alternative. There was no agricultural work for a few months and the amount they got as agricultural labourers was sufficient only for the days they were paid. Even now they could buy grain only after they had sold the wood. If they didn't sell the wood they didn't have money to buy grain. The other alternative was to borrow money from the money lender. It seems that the Panchayat member is one of the money lenders in the village. When they borrowed, they had to pay back 50 paise extra each month for every rupee they had taken and this was too much for them. If they pawned some jewellery or a good brass vessel, then the interest was much lower but this was done only as a last resort.

The discussion continued. But since it was already dark, we had to leave. On the way back, Charu and I felt very depressed. What can these people do in such a situation?

### 3rd May

Went in the afternoon to the village. On the way met





dai from harijan basti. She was going back to her house after attending a delivery case in Lalwat village. She showed us proudly the one rupee coin and new bangles that she had got. Apparently some families in that village still call her even though there is a dai in that village. They had more faith in her she said because for several generations the women in her family had done this work while the Lalwat dai's family started the work only 2 generations ago. According to her, the Lalwat dai was very jealous because she was considered lucky and auspicious as most of her deliveries turned out to be male children. Even this one was a male child.

We asked her what she did to get male children. She said she had some herbs which she gave to the pregnant women. We asked her which herbs, but she gave us a vague reply. It was obvious she didn't want to tell us.

She also said that for the herbs to be effective some foods should not be taken during pregnancy such as mangoes, brinjal, papaya etc. There were customs which had to be observed too. The pregnant woman could not sit on the doorstep in the evening and she had to lie down on the left side while sleeping etc. We walked with the dai upto her house. Her neighbour's house was open. Went inside and found a young woman lying curled on a cot. She was burning with fever.

Charu immediately started sponging her and we overruled the dai's protests that a person with high fever shouldn't be exposed to cold water. The woman's temperature came down and we wanted to give her two aspirins before leaving. But the woman had had no food since the previous night. Neither was there any cooked food in her house. We thought we'd cook something for her but there was barely a cup of broken rice in the house. The dai said she'd get a roti from her house and give it to the woman. Her daughter-in-

law must have left some for her. We gave the aspirin to the dai and asked her to give it to the woman a little while after she had eaten the roti. We also promised to look up the woman before leaving the village. Went to the high caste street. Sukhra's wife had just finished lunch and was getting ready to sleep. Her 3 children and the other women in the house were already asleep. One of her children had diarrhoea. She showed us the medicine given by the private practitioner in the town to whom they had taken the child. The doctor had also given some injection she said, but the diarrhoea had not stopped. She asked us how the medicine was to be used since it was in powder form. She had tried to give one spoon of the powder to the child but he had refused to eat it. The medicine was actually ORS packets. We explained how to prepare the OR solution with them. We also told her that she need not buy these packets to make the drink (the doctor had charged Rs. 15 for 2 packets) but could make it at home with salt, sugar and lime. We talked about how diarrhoea spreads and asked her which of the 3 village wells she used for getting drinking water.

She said almost everyone in the village used only one well or got water by digging pits in the river bed. The two other wells in the village were not used. One well had brackish water and was used only for washing clothes and vessels, while the other well was not used at all because a woman had committed suicide 5 years ago and after that 2 children had fallen into the well. Now no one went near that well because it is believed that the spirit of the woman who had committed suicide sucks into the well anyone who goes near it.

Nothing important in visits to the other houses. Treated 3 kids with scabies, 4 with diarrhoea, and one woman with fever. All the families in the high caste street are joint



families, brothers with wives and children staying and cooking together along with grandparents.

In Dhunni Mal's house even great grandfather is alive! In harijan basti only one family stays in one house. All houses in high caste area are pucca houses with separate kitchens and courtyard. No one has latrines in the house. The adults go to the fields while the children defecate on the street. Only in Panchayat member's house there is latrine. His wife told us that this was built only 3 years ago because government officials used to come and stay in the house. The forest ranger also came often and was very friendly with the family.

We thought we would talk about the harijan basti's forest problem to the Panchayat member. May be he could tell the forest ranger. But Panchayat member had again gone to Orissa. Wife talked nicely with us and even gave us sherbat. Apparently she comes from a rich family in another district. Her father was a Zamindar. She told us that she felt very cooped up in Deoli because it was a small village compared to her's and with very few facilities. She also didn't have any company because Panchayat member was often away in Orissa or Indore on business. We asked what business and she answered, cloth business. She said Rasia came and slept with her whenever her husband was away. Her's is not a joint family. Panchayat member's brother is in Bilaspur, where he has a shop. Leela is very proud that all her 4 children are boys. The eldest boy is 10 years old and is in a boarding school. The second boy goes to the primary school in the village itself. She wants to have one more child, a girl, and then have an operation. Because she was friendly and was also boasting about how wealthy they were, we casually asked her how much land the family owned. Leela immediately clammed up saying that only her husband knew about such matters. After this, she seemed

to become more wary and withdrawn. May be we shouldn't have asked her.

On our way back we went to see the sick woman in harijan basti. She was much better and had already started working in the house.

### 10th May

Couldn't go to the village since Charu is on leave and a lot of dispensary work to be done.

### 17th May

Didn't visit again, since Charu is on leave still. Patient from harijan basti came two days ago. I asked him about the forest problem. He said that the bribe had been paid to the forest ranger over two weeks ago. Since then there was no problem. I asked him who went to give the bribe—did they all go in a group? He said no, only Lachman and Bhanar went. I remembered both of them. They were in the group with Subedarji both the times we went to the harijan basti. Also asked why Charu and I hadn't come to the basti for a long time. I told him we'd come next week. Actually I could have gone to the village on my own but I feel nervous about going alone.

### 24th May

Charu and I took Ram Singh, our dispensary chowkidar, with us because we wanted to visit both the harijan basti and weavers street today and we knew we'd be late getting back.

Subedarji was very happy to see us. He immediately introduced us to his nephew who had come back to the village after spending 2 months in Raipur with relatives, trying to get a job. But he had not found one. Subedarji was very fond of this boy, Sukhdev, as he was



the last child in the family and was the only one educated in the whole basti. He had studied up to class X which he had failed and had been searching for a job ever since he finished school 4 years ago. Charu and I were surprised to see him so well dressed—clean shirt, pressed pants, and even a watch. He kept picking up an old newspaper and reading it during conversations.

He questioned us a great deal about what we were doing in the basti and told us that the village was very backward and he didn't want to settle down here. We suggested that since he was free, he could start a night school for children. He straightaway asked us if we would pay him but we told him that we didn't have the money for it.

Ram Singh was enthralled by the Subedarji's stories of the army and so we told him to join us at the weavers street a short while later. The weavers were getting ready to sleep when we went. Immediately somebody brought us a cot to sit on and a small hurricane lamp and a lot of them gathered around to talk. They said they had not got work for the last 3 weeks and were barely managing to eat one meal a day with money borrowed from the Panchayat member. The silk worm had developed some disease and so there was no supply of silk thread. Apparently this stoppage of silk supply for various reasons occurs at least 2-3 times in a year. We suggested to them that they could start a co-operative and attach themselves to the Government Khadi Board. This would give them a regular market.

Nobody said anything when we gave this suggestion. There was complete silence in the group. We were wondering whether they had understood what a co-operative was and Charu was just going to start explaining in detail about it when Ram Singh appeared and they started talking about something else. We

must remember to talk about the cooperative next time we go. The weavers also told us that the silk thread was brought by the Panchayat member who distributed it to them. The silk sarees were also collected by him to be sold at Indore. Asked how much money they got for sarees but people gave vague answers. We returned at 10 p.m.

### 31st May

Neela has been unwell for the last 3 days or so with heat exhaustion. Went with Ram Singh to the Harijan basti and weavers' street. On the way, dropped in at Panchayat member's house. He was at home. As usual, he talked nicely, asked about Neela and how our work was proceeding. During the conversation, I asked him why he doesn't start a cooperative for the weavers in the village. Immediately he started saying nasty things about the weavers—how lazy, ignorant and backward they were, how they wasted all their money on food and drink and that they didn't even know what the word 'savings' meant. Besides, he said, a cooperative meant that the families should cooperate with one another. But these people were fighting all the time.

After saying all this, he asked me why I was interested in a cooperative. Did the weavers say anything about wanting one? I said no, the weavers didn't say anything. It was just that I had studied about the usefulness of cooperatives so I was thinking about it. He said we were supposed to do health work not social work in the village. Sensing that he was getting hostile for some reason, I changed the topic and chatted about general matters.

Leela had gone to her father's house for a week and I asked about her and the children. When I was leaving, the Panchayat member jokingly said, "Get busy with



the health of the people bahin, there is a lot of sickness in the village these days." I did not like the tone in which he said this. When I told Neela about the whole conversation, she said he obviously does not like the idea of a cooperative for the weavers as most probably his own business would be affected. This is most likely, I suppose, I should have thought about this before saying anything to him. Me and my big mouth! Will have to be very careful next time.

Visited weavers street. It was already dusk. Women were cooking something. One of them showed me a spoonful. It was a watery soup made with broken millets. "This is what we have been having for the last 4 days," the woman said. Everyone I met looked gloomy and weak. All they kept telling me was, "Please pray that we get the silk thread soon—only God can help us."

Neela's and my earlier opinion that the weavers were better off than the Harijans does not seem true at all. They are also very poor people. Went to Harijan basti. Spent time with Subedarji. One just can't avoid meeting him. And once he starts talking he doesn't stop talking. He asked about Neela and why I had come so late. I told him that I went to the Panchayat member's house and then to the weavers street. The weavers have had no work for 4 weeks now and I was interested in starting a cooperative for them. Subedarji said that a cooperative wouldn't work because some years ago a few social workers from outside had come to the village and begun a weavers' cooperative. But for some reason it never worked out. Subedarji said he didn't know the details but he did know that the cooperative had begun and was even registered because one of the social workers used to come and gossip with him.

Neela and I discussed why both the Panchayat member and the weavers didn't mention the cooperative to us. We must try to find out more about this.

Ram Singh has still not got bored with Subedarji's stories. Good for us because he'll be willing to come with us next time too. Also we can leave him with Subedarji and then spend more time in the village.

This extract from the diary of Deoli helps us form a picture of the village and its people—the main occupations, interactions between the different groups and some of the problems. It also helps us get an idea of the interactions between the health workers and the people.

Keeping such a diary can be of use to Neela and Charu, in several ways.

**First**, the diary will help them remember all that they have learnt about the village. For instance, if it becomes necessary for them to recollect certain events and conversations in the course of their work, they can read the diary entries and refresh their memories. Since they have noted down names of people in their diary, the health workers will be able to remember easily the people involved in specific incidents. This will also be helpful to a new member of the health team during her visits to the village.

**Second**, the diary can show the health workers any gaps in information which they will need to collect in future visits. By reading the last diary entry before going to the village, the health workers can follow up on any event which has occurred earlier. For example, the



health workers of Deoli do not seem to have followed up on the woman whose two children were suffering from diarrhoea and who was reluctant to use the rehydration drink due to lack of time. Even if they did, they have not noted it in the diary. Writing down the results of such a follow up will help the health workers to assess changes in health practices of people at a later date.

**Third**, the health workers can make use of their diary to make a list of problems people are concerned about and which they could work on. From the entries of Deoli village diary, so far, the following problems have been either observed by the health workers or mentioned by the people during their conversations.

- \* Money lending at high interest rates
- \* Demanding of bribes by forest officials
- \* Children sitting at home while parents are away at work
- \* Weavers don't have any work when silk supply has stopped
- \* No medical facilities close by.

**Fourth**, though a village diary basically consists of the perception of the health workers, it can still be used by them to evaluate their work. This can be done by going through the entire diary once, every two or three months and looking for incidents, observations and conversations which show a change in the attitude and behaviour of both the health worker and the people, decisions which have had a good impact on the work and those which have created bad side effects etc. Taking the entries of Deoli village diary, let us see how the two health workers can evaluate their work in this village so far.

### **Changes in the health workers' attitude towards village people**

There has been a clear change in the attitude of the health workers from one of keen desire to concentrate on health education through flash cards to concern and sympathy for the poor because of their helplessness to change their living conditions. In the beginning they tried to finish visiting each house in the village starting with the high caste street, but later they started spending more time with the people of the Harijan basti and weavers' colony. They have begun to realize that people have more pressing problems than they had thought earlier and have started thinking more deeply about what they can do to help solve these problems.

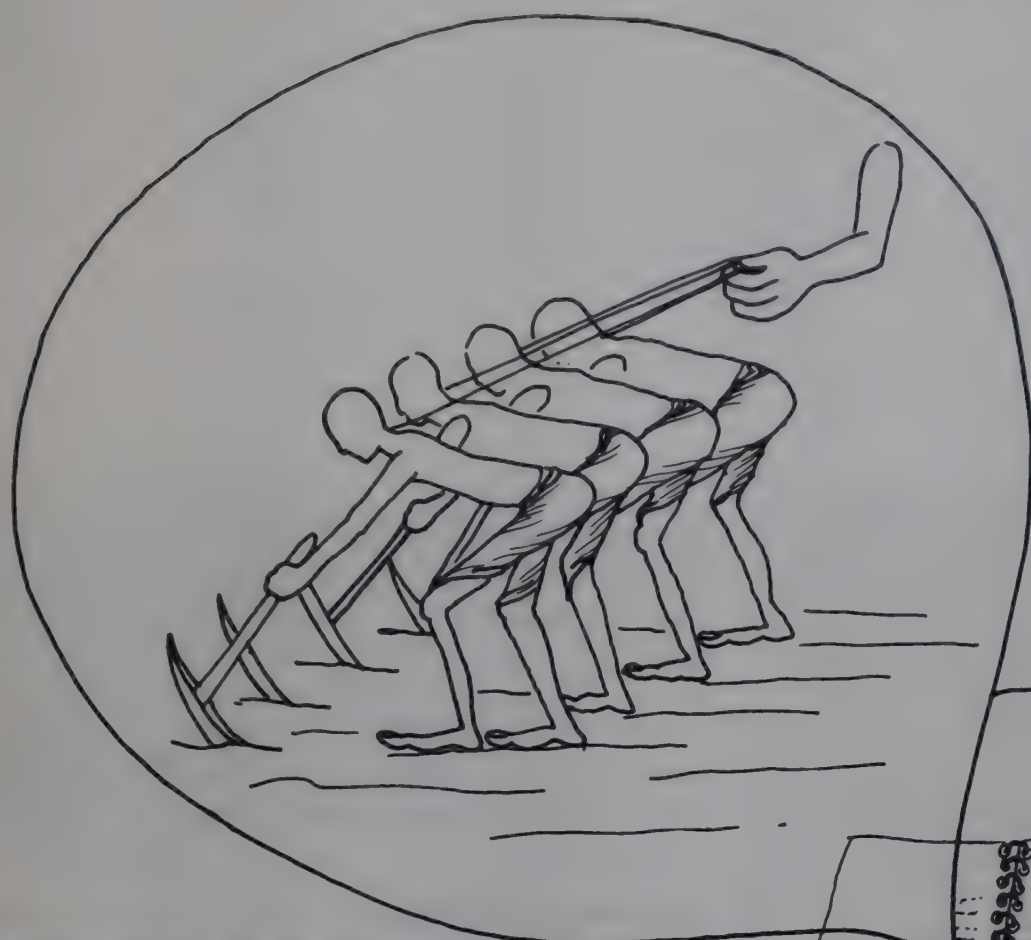
### **Changes in people's attitude and behaviour towards the health workers**

It is still too early to say what changes have occurred in people's behaviour towards the health workers. However, by the observations that have been made so far in the diary, it is clear that Leela, the Panchayat member's wife has become more friendly with the health workers while the Panchayat member who was earlier friendly is beginning to show signs of hostility towards them.

### **Decisions which have so far had a positive effect on the work**

Visiting the harijan and weavers' basti in the evenings, taking Ram Singh along in case it gets late and spending more time with the poor without cutting themselves off totally from the well-off, are three examples of decisions which have helped in the progress of the work.



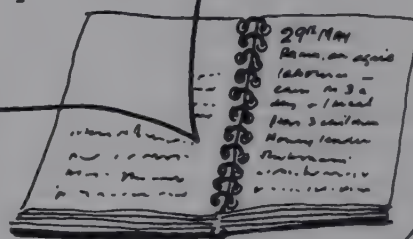


## Mistakes made by the health workers

Wanting to see a pregnant woman without knowing the customs of the place; presuming that weavers are well-off because they were weaving silk sarees; asking Leela about the amount of land her family owned the first time they had a friendly conversation with her; and Charu speaking about the cooperative to the Panchayat member without discussing the pros and cons of talking to him with Neela, are four examples of mistakes on the part of the health workers.

It is important to remember that mistakes are not committed on purpose. It is quite normal for a person to say or do something without realizing the effect it is going to have on another person. The important point is that once the health worker has realized she has made a mistake, she should apologise if necessary and try not to repeat the mistake.

To conclude, maintaining and using a village diary is a special skill. In the beginning health workers may record several things which are not really important, but over a period of time, they will be able to develop the skill of knowing what to write and how to write briefly and clearly.





### 3 : Helping people deal with their health problems

By now, the health worker would have gained some understanding of the way people live in the village, the different groups that exist, their day to day interactions and their problems. She would also have developed some understanding of the relationship between social and economic conditions in the village and the common diseases among the people. Further, for several months, she would have spent a lot of time with people and established a closer relationship with them. During her discussions with them, the health worker would have had several thoughts on how people could deal with their health problems. She could now start discussing these with people and work out possible ways of tackling the problems faced by them.

The health worker faces a definite choice at this point in her work. Which group of people should she work with? She knows the village is divided, a few are powerful and control the lives of the others and it is this fact that decides who in the village can be healthy and who cannot. In dealing with the problems of the poor and the real causes of illhealth she will come into conflict with the powerful group in the village at some time or the other. This is because the interests of the two groups are completely opposed to one another. She cannot remain impartial and work with both the rich and the poor. Being 'impartial' very often means siding with the rich. In dealing with the problems of the poor and oppressed the health worker will **have** to take sides.

As we saw in Section I, the people who control the lives of the poor are very powerful. They have economic power because of their land and wealth. They have social power because they belong to the upper castes and are educated. They have political power because they make decisions which affect the lives of the poor and control the important institutions in the

village and outside. The poor on the other hand have no economic, social or political power. Their only strength lies in their numbers. Only by coming together as a group can they put pressure on the rich and fight exploitation. The aim of the health worker should be to develop this strength of the poor, by helping them to come together to collectively change the conditions which prevent them from leading healthy lives. She should work towards this aim slowly, and with caution.

#### Forming a group

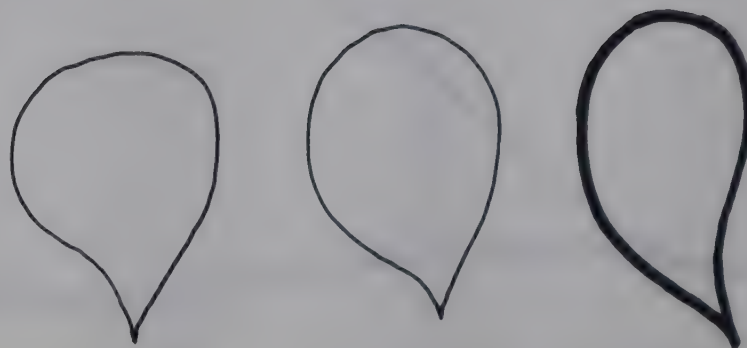
##### Bringing people together

The health worker can use several opportunities to bring people together initially. During her interaction with individual patients and families she can introduce the idea of forming a group or discuss ways of solving problems. Entertainment programmes with an educational message, plays and puppet shows (**Helping Health Workers Learn** by Werner and Bower has some excellent ideas on the use of communication methods) can bring people together in one place and can become the basis for group discussions. Sometimes, a group is already in existence in the village. A few young men may be meeting regularly for sports or entertainment. Women may be meeting off and on for praying and singing bhajans. Wherever people come together regularly for a common purpose, the health worker can build up the group further, using her imagination and skills.

An important event in the village could also become the beginning of a series of discussions with people on a regular basis. To take an example:

A majority of the people in a tribal village in Gujarat were working as labourers at a dam





site. The labourers had to go to work early and so would get up by 4 a.m., do their household tasks and reach the dam site by 6 a.m.

Unfortunately, a few months after they began this work, several of them started getting delayed and consequently lost a part of their wages. The superior at the dam site also began threatening to get workers from another village if the labourers didn't start coming on time. A health worker of the area soon found out their problem — night blindness — and distributed vitamin A capsules among the people. This had a dramatic effect on their eye-sight and the people were once again able to go to work on time. The health worker used this event to bring people together to discuss other problems and find ways of tackling them.

Important events need not be disease related like in the above example.

A health worker in Tamil Nadu had often talked to the people in her village about the necessity of building a wall around the village well and keeping it covered as this was their only source of drinking water. The people usually nodded and said it was a good suggestion but didn't get down to doing it. One day, a small child accidentally fell into the well. This incident, along with the health worker's encouragement brought people together to work on a common task. It also became the starting point for a regular group in the village.

The health worker should therefore be alert to pick up such critical events in the village to bring people together to form a group. Sometimes the health worker may face severe problems in getting people to come together. This could happen when there are deep divisions among people for reasons such as old inter-family quarrels or caste differences. Often, within the broad category of lower caste, there are different castes and sub-castes and each caste group may be hostile to the others. Sometimes, the physical distance between houses is so much that people may find it very inconvenient to meet regularly. This is especially true in certain tribal areas where each house is surrounded by the fields that belong to that family. Finally, people's attitudes towards the health worker, when she starts talking about ways of solving problems may place limits on her attempts to bring them together. Some people could be completely apathetic or indifferent.

Others may view her as being capable of dealing with medical problems only, while several may feel that the health worker should give them material and financial help to improve their economic situation. Though the health worker may find these attitudes very discouraging she should try to understand how these attitudes have developed in people's minds. Over time, through her discussions and behaviour, people will start viewing her differently.

Whatever the problems, the health worker should persevere in her attempts to bring people together. Only if there are serious problems in doing this, should she think of working in another village. The important principle which the health worker should keep in mind is that people will make an effort to form a group if they think they will benefit from it. Individuals come together to satisfy a personal interest or need, which could be social, emotional or economic. If the group





does not satisfy the individual members they will lose interest and stop coming for the meetings.

### Starting a discussion

Since the health worker needs to help people understand and question the real reasons for disease, she should have regular discussions with the newly formed group on this. There are several ways by which the health worker can start the discussion. A recent incident in the village such as the death of a child or adult which could have been easily prevented, an unpleasant experience with the PHC staff or other government staff, or a problem with the landlord — any of these incidents could be used to start off a discussion on the problems in the village and their causes. However, it is not necessary for a health worker to wait for such incidents to occur to start off a discussion. She can get the group to start talking about their problems by asking questions about their problems.

Newspaper and magazine reports can also become the basis for a discussion on the problems people face. Another way in which she can begin the process of discussion is described in detail below. These are simple guidelines which will necessarily have to be adapted by the health worker according to the conditions in her area.

The health worker can begin by asking the members of the group to make a list of the problems that require to be dealt with first, second, third, fourth etc. (i.e. a list of priority problems). People may find it easier to decide which of their problems is more important if they ask themselves (i) how common is the problem? i.e. how many people are affected by it? and (ii) how serious is it? Those problems which are both common and serious are the priority problems. The

group can then discuss the causes of each of the problems. Once the causes of a particular problem have been clearly understood and listed by the group, they could decide which 'cause' they can tackle and how they are going to tackle it. The usefulness of the above process lies in the fact that it gets people to start thinking afresh about their lives and their problems and in a more systematic way.

### An example

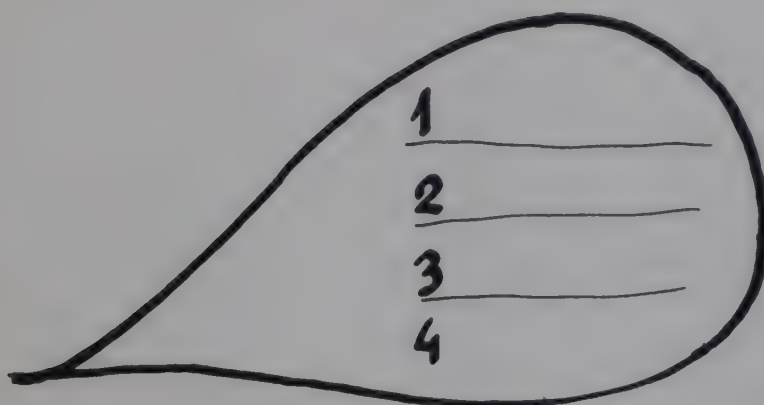
*The members of a group in one village, after several discussions, came up with the following list of problems:*

- |                                  |   |
|----------------------------------|---|
| — Tetanus                        | — Debts and high interest rates                             |
| — Medical services not available | — Fever with chills   |
| — Lack of food                   | — Chicken pox   |
| — No drinking water              | — Getting cheated because of an inability to read and write |
| — Worms                          | — Housing   |
| — Skin diseases                  | — Diarrhoea   |
| — Lack of firewood               | — Drunkenness   |
| — Not enough land or money       | — Tuberculosis  |
| — Measles                        |   |
| — Not enough work                |   |

*As can be seen there is no order in this list. The health worker noted down the problems as they were mentioned during the discussion. To find out which of these were more important, the health worker asked the group to decide **how common** each of these problems was.*

*Tetanus, the first problem in the list was not considered to be very common by the group. The health*





worker wrote tetanus on the left hand side of a large sheet of paper. The next one on the list i.e. medical services not available, was considered very common as each and every person in the village was affected by it. The health worker wrote this down on the extreme right hand corner of the paper. Lack of food, was the next problem discussed by the group. After much dis-

cussion it was decided that only very few families in the group had enough to eat throughout the year, but a large majority were too poor to eat adequately. Since everybody was not affected by it, lack of food was written on the left hand side of 'medical services not available'.

The health worker's sheet now looked like this.

#### LESS COMMON

(Least common)

—Tetanus

(Common)

#### MORE COMMON

(more common)

—Lack of food

(most common)

—medical services  
not available

The group discussed each problem in the list one by one and after comparing it with the others so far discussed, decided how common each one was. When they came to measles they found that it was more common than tetanus but not as common as worm

or skin diseases. So the health worker wrote measles in the space between tetanus and the second group.

By the end of the discussion, the health worker's list looked like this:

#### LESS COMMON

(least common)

—tetanus

(common)

—measles

—housing

—fever with chills

—chicken pox

—drunkenness

—tuberculosis

#### MORE COMMON

(more common)

—lack of food

—worms

—skin diseases

—lack of firewood

—not enough land  
or money

—not enough work

—debts and high  
interest rates

—diarrhoea

—getting cheated  
because of inability  
to read and write

(most common)

—medical services  
not available

—no drinking water



The group then discussed each problem again to decide **how serious** each one was. The health worker took a new sheet of paper and wrote less serious ones

on the left hand side and the more serious ones on the right hand side. By the end of the discussion her second sheet of paper looked like this.

LESS SERIOUS		MORE SERIOUS	
(least serious)	(serious)	(more serious)	(most serious)
—skin diseases	—medical services not available	—no drinking water	—tetanus
—worms	—getting cheated because of inability to read or write	—measles	—lack of food
—housing	—fever with chills	—lack of firewood	—not enough land or money
—chicken pox		—not enough work	
—drunkenness		—tuberculosis	
		—debts and high rates of interest	
		—diarrhoea	

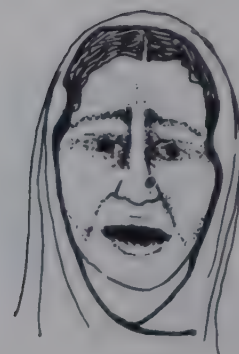
The group was now able to pick out the more important problems. Those which were more common and more serious

<ul style="list-style-type: none"> <li>— lack of food</li> <li>— Not enough land or money</li> <li>— no drinking water</li> <li>— lack of firewood</li> <li>— not enough work</li> <li>— diarrhoea</li> <li>— debts and high rates of interest.</li> </ul>	<p>Serious but less common</p> <ul style="list-style-type: none"> <li>— tetanus</li> <li>— tuberculosis</li> <li>— measles</li> </ul>
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<p>More common but less serious</p> <ul style="list-style-type: none"> <li>— worms</li> <li>— skin diseases</li> <li>— getting cheated because of inability to read or write</li> <li>— medical services not available.</li> </ul>
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All the other problems were both less common and less serious and therefore the group decided that they could be dealt with later. In successive meetings, this group went on to discussing the social conditions responsible for some of the most important problems they had listed so as to know how to deal with them.





## Seeking solutions

In seeking solutions with people, the role of the health worker should be to encourage discussions on the different possibilities open to them. Tackling relatively easier problems and achieving some success in the beginning helps people to gain a certain confidence in themselves to face more difficult challenges.

Given below are two examples to show how the problem of tuberculosis was tackled differently by two health workers. In the first example, the health worker Asha, used an already existing group to work towards a solution while Mira, the health worker in the second example got women together on the basis of solving the problem of tuberculosis.

### Example I

Asha, a nurse, had been having regular meetings with the women in her village for the last ten months. The group had initially been motivated to come together by Asha to find a way of solving a common problem namely, lack of money especially for emergency purposes. The women had spoken individually to Asha at different times about this problem. After a lot of discussions, spread over three meetings, the women decided to pool together whatever they could save each week. At the end of each week, every woman brought 3-5 rupees and Asha deposited this money in a common savings bank account which had been opened for them in a nearby town. She also kept a notebook in which she wrote the amount of money deposited weekly by each member. Whenever a woman needed a loan she would put forward her request to the group and the group would then take a decision on it. The money was also used by the en-

tire group for certain common activities such as buying vegetable seeds for all the members. Three times a month, Asha had also been discussing specific health problems in the village such as scabies and diarrhoea. She had also taught the women some basic first aid.

All the women in the group knew that Sumithra had TB. In fact, Sumithra did not mix freely with the women in the village or join in their weekly meetings because of her problem. One day, Sumithra went to Asha for advice. She wanted to know if she should continue taking her tablets since she had been taking treatment for the last two years. During her discussions with Sumithra, Asha realized that for several reasons, Sumithra had started treatment late. She told Sumithra that she had been planning to have a discussion on TB with the group as it had been mentioned by them as a major problem in the village. She asked Sumithra if she was willing to come and share her experience with the group. Sumithra hesitated, but after Asha explained the importance of her contribution, Sumithra reluctantly agreed. Asha passed the word around about the topic for the next health meeting. At this meeting, Asha introduced the topic and the discussion began.

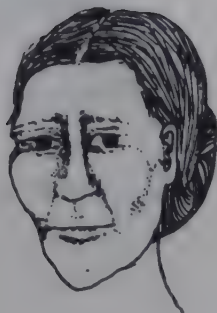
Asha: Some time back we had discussed that TB is a major problem in the village. A few days ago Sumithra came and asked me about her medicine. I thought why not discuss it in the whole group. Let's first find out how a person gets to know that she has TB.

Asha: How do people know they have got TB?

— I think when people are walking up the hill they get breathless.

— My uncle had TB. He never became breathless but he coughed a lot. He would never





let us sleep. The whole night he used to cough, cough, cough, cough.

— It is very painful. With all this cough your chest starts paining, and lot of blood comes out in the cough and the man becomes terribly thin. You can count the number of bones in his chest.

Asha: Actually, you have mentioned almost all the different ways of finding out if a person has TB. But what about children. Do they also get TB?

(group is silent for some time. Then one person says hesitatingly)

—No, I don't think so.

Asha: Children also get TB. But they may not cough. When a child starts getting thinner and thinner, and is not eating properly it is possible that the child has TB. Maybe we could ask around and find out if any of the children we know have become thinner in the last few months.

Asha: Let us now think of the people in the village who have TB.

— My uncle had TB

— Ramu's wife has TB.

— Lakshman's child died 6 months ago and they said she had TB but we don't know.

— What, Ramu's wife? Even Ramu I think has TB. He has been coughing a lot but he doesn't go to the doctor.

Sumithra: (laughs nervously). Everybody knows about me.

Asha: What do people in the village do when they think they have TB?

— Wait for the cough to go away.

— Go to the local healer.

— Offer prayers.

— Sometimes when it gets bad they go to the doctor.

Asha: When do you go to the doctor?

— When condition gets bad—when you are not able to work.

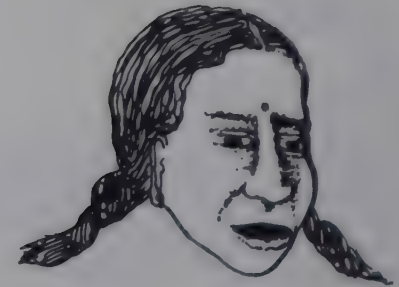
Asha: Sumithra, how did you find out you had TB?

Sumithra: I was coughing a lot and had blood in my spit. So I went to the doctor and he told me I had TB.

Asha: How long had you been coughing before that? Did you ever go to the doctor for your cough?

Sumithra: I was coughing a lot for a long time and was feeling weak. One day the landlord's wife told me I wasn't doing my work properly and that she would get a substitute for me if I didn't work harder. Then I went to the doctor and asked for an injection, which would give me strength. I told him I was feeling weak and coughing a little. The doctor gave me an injection and a liquid medicine which he told me to drink whenever I coughed. I was relieved that I didn't have TB.





Asha: Why didn't you tell the doctor you were coughing a lot?

(Sumithra smiles and keeps quiet)

Did the doctor examine your chest with the stethoscope?

Sumithra: No, he just asked what my complaint was and gave me medicines.

Asha: That means, you were told by the doctor you had TB only when you told him that you were coughing out blood.

Sumithra: Yes.

Asha: From whatever you have said it means that most people come to know they have TB only in the later stage of the disease. One reason is that we wait for it to get better or wait till we can't work and even when we do go to the dispensary it is not necessary that we will be examined properly. Okay, then, what else did the doctor tell you?

Sumithra: He gave me some medicines. The nurse there told me I must eat good food like eggs, meat. She also told me to drink a lot of milk.

(Laughter all around).

Asha: What are you all laughing about? Tell, tell.

— If we had money to buy meat, milk and eggs, then why would we get TB in the first place?

— The other day when I went to the dispensary for body ache, the nurse behen told me also to eat good food and rest.

Sumithra: When the nurse told me to take rest I told her how can I when I have to look after the family and work in the fields.

— Behen, the fate of us women is to die working for the family.

Asha: True. Often those who do not have enough to eat get TB. What about the other people with TB in the village? Are they also poor?

— Most of us are poor in this village. Tell me who is rich?

Asha: I agree with you that meat, milk, eggs, are costly, but eating more of what you normally eat should be good enough.

(much whispering in the group).

Asha: Have I said anything wrong?

— What behen? You are talking about eating more! Here we don't even have enough to fill our stomachs twice a day!

— All of us had to leave the village to find work outside, you know that.

— Last year the Monsoon failed. Even the little we are normally able to grow dried up.

— Half the time we don't get work.

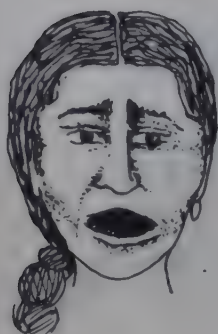
Asha: Sumithra, did you also leave the village?

Sumithra: Yes, behen.

Asha: What about the medicines the doctor asked you to take?

Sumithra: He gave me tablets that I had to take every day. He also told me to get injections twice





a week. When we left the village I had some tablets left with me. So I took them. Then when they finished, I stopped. Anyway, I was feeling a lot better by then.

Asha: But what about your injections?

Sumithra: Injections? That I stopped long ago. Who can go twice a week to get the injection. I went to the private doctor in the next village. He charged me one rupee for giving the injection. Anyway since I was feeling better I thought why spend money unnecessarily.

Asha: But didn't the doctor tell you to take the injections till he told you to stop?

Sumithra: Yes, he told me that I must take injections regularly, but....

Asha: What about the others in the village? Do they take their treatment regularly?  
— My uncle used to go regularly to the government centre. But half the time the centre didn't have medicines and even when he tried to get it in the town it very often was not available.

Asha: We have got to know quite a bit today. We have seen that people go late for treatment; sometimes the doctor does not realize the person has TB. Medicines are not available or they are expensive. Sometimes we have to migrate and are therefore not able to continue the treatment. It is also not possible for us to eat well. Sumithra has given us a lot of valuable information. But let us also ask the others in the village. Maybe they will have more information. You people find out

and so will I. When we meet next week we will discuss again, okay?

In the following days Asha and the others in the group talked with the TB patients in the village. From their discussions they came to know a few more points. Shamsher stopped his treatment because he had to watch over the landlord's fields and the landlord refused to give him permission to go to the PHC. Nathie stopped going because she had to wait at the PHC for very long. Invariably the other women waiting there would ask her what was wrong with her and she would be ashamed to tell them.

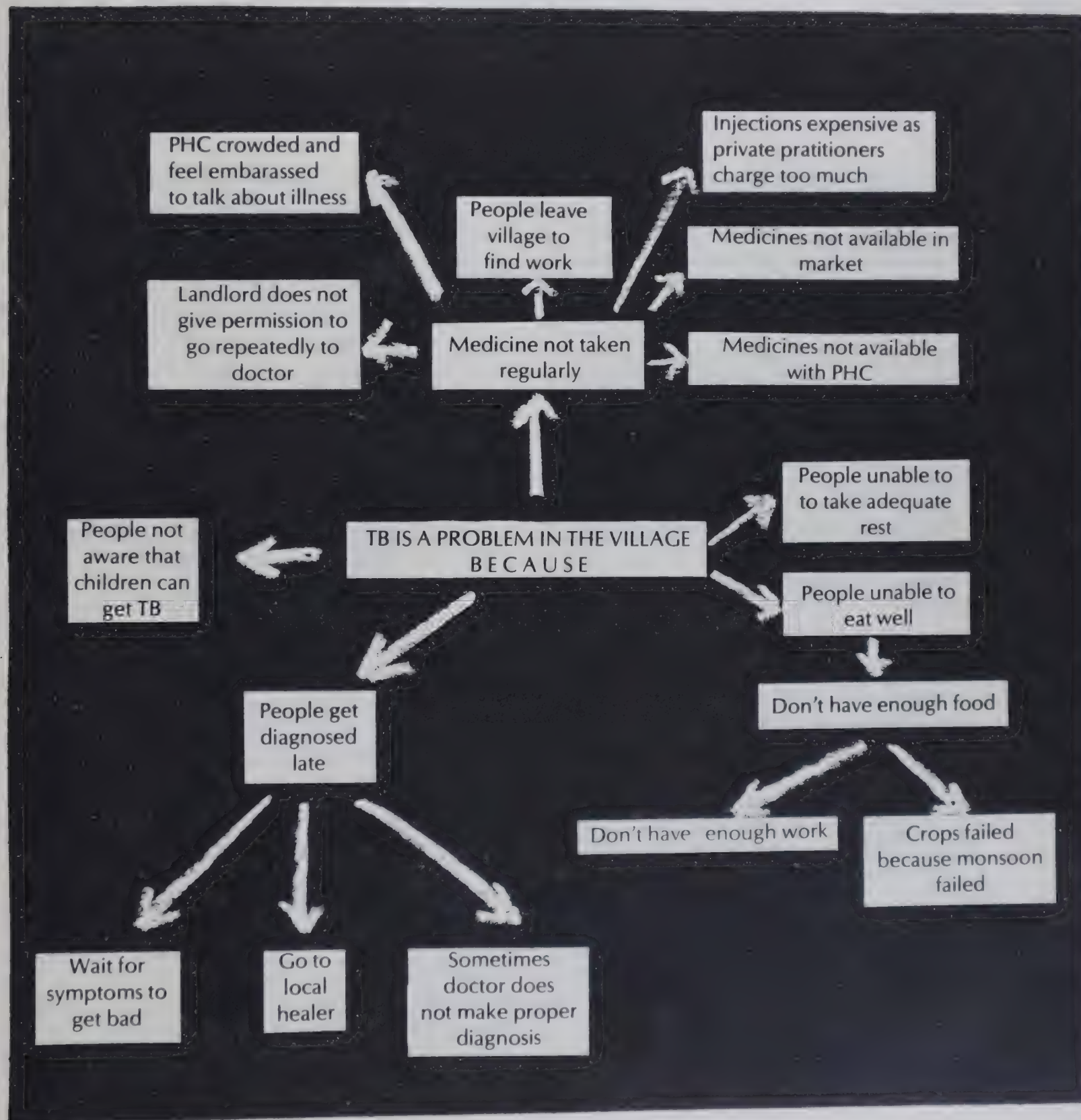
After her discussions with people in the village Asha realized that TB was a problem in the village because:

1. People got diagnosed late
2. People were not aware that children could also get TB
3. People did not take medicines regularly
4. They were unable to eat well
5. They were unable to take adequate rest.

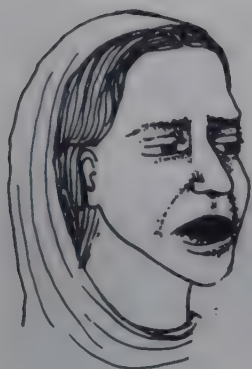
She also knew some of the other factors that contributed to the problem of TB in the village. Asha looked at her chart to see what would be easier to deal with. She started with the problem that people do not take medicines regularly. Remembering that Sumithra had asked about the need to continue medicines, Asha felt she needed to begin by explaining the reasons for taking regular and complete treatment for TB. She did this in her next meeting with women and also during her village visits.

But this was not enough. People had said that medicines were not available in the PHC and they couldn't make repeated visits there either. Once again she discussed this problem with the women.









Asha: We have been talking about the reasons for taking complete treatment for TB. But if you remember, you said that medicines are not available with the PHC. Let's see if we can deal with this problem in some way.

— What can we do about it behen?

Asha: Actually the government is supposed to supply free medicines to all TB patients. The government has money specially kept aside for this purpose. PHC's are supposed to supply these medicines to all the people who need them.

— Then behen, why don't you ask the PHC to keep medicines for us?

— What do we poor people know about all this?

— They don't give us medicines, we stop treatment. Life goes on anyhow.

— Once the PHC doctor really shouted at Jagānnath for stopping treatment.

— Who wants to go and get shouts in the PHC?

Asha: I understand how you feel. But let us not give up like this. I'm sure we can find a way of getting medicines. Yes, I could go and talk to the PHC doctor about medicines but you would still have to go there to get them. Do you remember you told me that you can't keep going to the PHC so often?

— Of course, there are a hundred things to do anyway. Why waste so much time going to the PHC.

276 (More talking in the group, Asha interrupts).



Asha: Let's talk one at a time. Someone may have a suggestion which the others will not hear if we all talk together.

(silence).

Asha: Come on Shanti behen, I heard you saying something, what were you saying?

— Nothing important.

— Briju behen was saying that you should keep medicines for us in the village.

Asha: But how could I do that?

— You were the one who said the PHC should give medicine. You can ask the PHC to give them to you.

Asha: I don't know, I'll have to go and talk to the government officials in the town. The PHC can't just give me the medicine. I will have to talk to the TB officer and tell him how many patients there are in the village and see what he says. But even if he has TB medicines I can't keep going again and again to the Babu in the town.

(silence)

Asha: Don't you think everyone will benefit if we first find out how many people in the village have TB? Then I'll go and talk to the TB officer.

(silence)

Asha realised that the women were not yet ready to go further. The disease was dreaded so much that it would not be easy for her to convince people to get examined. She thought she'd end the discussion here and ask the women to think about it.





**Asha:** We have found a way of dealing with the problem of medicines. I agree that it's a good idea to keep medicine in the village and I'll try and talk to the TB officer. But like I said he'll want to know how many patients there are in the village and if he does agree we should see that everyone who may have TB gets the benefit. Let's think about it for some days.

Over the next few days Asha wondered what to do. She knew there were people in the village who may have TB but had not been diagnosed as yet. She looked in her village diary and found she had written 'may have TB' for four people in the village. If she told them she would go to the TB officer and try to get medicines for them would they agree to be diagnosed? Asha decided to go to the PHC and first find out what the doctor there, said.

The PHC doctor told her that he was willing to help. He showed her his records and said he already had 200 patients in the register who should take treatment regularly but the medicines he got from the district were barely enough for 100 patients. He suggested that she talk to District TB Officer. Asha requested the doctor to go with her to the District Office but he said he wouldn't be able to do that since his schedule was already fixed for the month. However he agreed to give her a letter of introduction to the TB officer.

Asha then made a trip to the district headquarters. Unfortunately the TB officer was out of town. After finding out his schedule, Asha went to meet him, the next week. Luckily for her, she managed to meet him and discuss her problem. The TB officer told her that there had been a shortage of drugs last year but now the situation would improve. It had been discussed at the

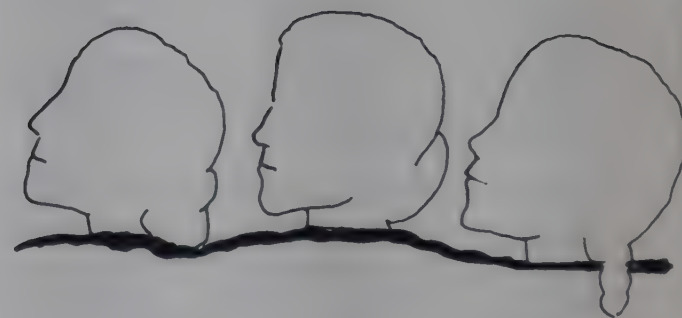
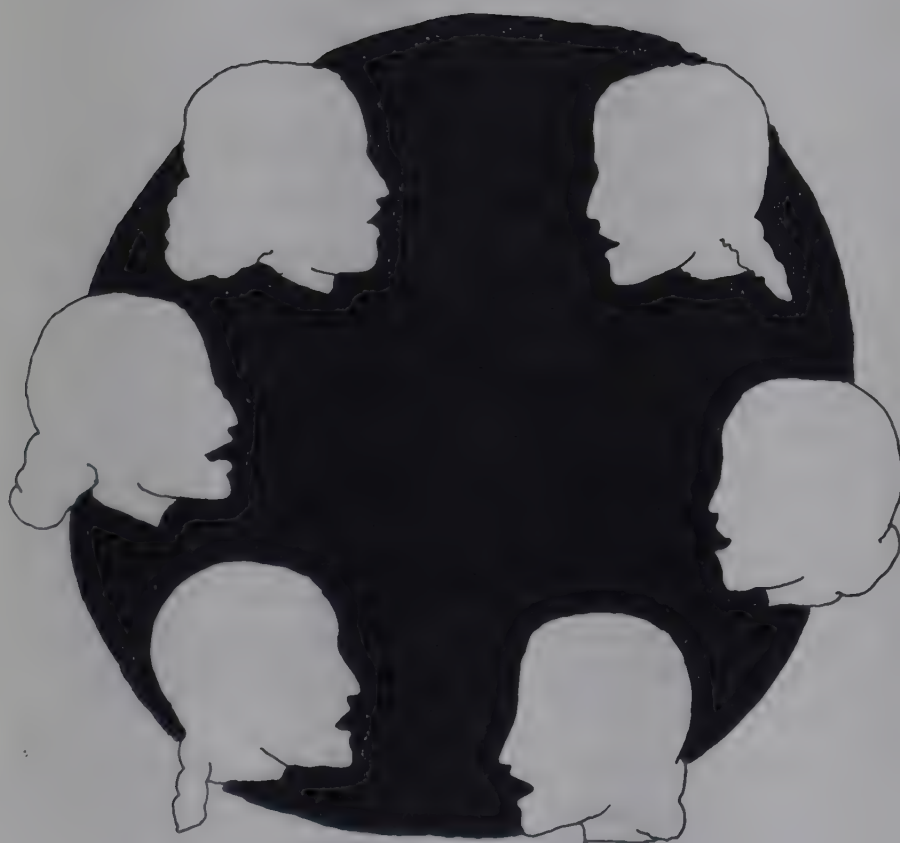
State level and more money had been sanctioned for stocking TB drugs. In fact he had already written a letter to the PHC to send him their complete drug requirements. He assured Asha that from now on she'd have no problem getting drugs from the PHC.

Asha then told him about the patients' difficulty in going to the PHC repeatedly to get drugs, specially injections. She asked if she could stock medicine for the villages in which she was working. The TB officer asked her to discuss that with the PHC doctor. Asha wasn't too happy with the arrangement because if the PHC doctor refused, she'd have to come all the way to the district headquarters again. She asked the TB officer to at least give her a letter for the PHC doctor. At this point the TB officer said that he'd be visiting her PHC sometime next month and he'll discuss it with the PHC doctor then. He asked her to come there if she could. He checked the date of his visit and told her when he'd be visiting.

Asha returned to the village and shared this information with the village women. She said she would go to the PHC when the TB officer came but it would be a good idea if some of the women went with her too. It would help the village if the people shared their problems directly with the TB officer and PHC doctor. It took Asha a long time to convince the group to go with her to the PHC. Fortunately four women agreed, and Sumithra was one of them.

On the appointed day, the group from the village went to the PHC. As usual, the TB officer came more than 3 hours late. But Asha was happy that he had come. It would have been very tough to get the women to come another time. Despite all their hesitation before the meeting, when the time came they managed to talk convincingly of their problems. They succeeded in





getting his permission to stock two months supply of drugs for the village on condition that a survey was done to find out the other people suffering from TB. Asha was made responsible for giving full records to the PHC and following up the patients.

With this initial success, the group gained a lot of confidence in their ability to solve a common problem.

Over the next few months, a TB survey was done and all the children were given BCG vaccination with the help of the PHC vaccinator. Asha knew that the prob-

278 lems of migration, inadequate rest and nutrition for TB

patients had still to be discussed and dealt with, but she felt confident that the group would discuss and attempt to find solutions for these too.

### **Asha's approach**

The steps followed by Asha in tackling the problem of TB in the village, can be summarized as follows:

- \* She discusses the reasons for TB being a problem in the village with the group of women whom she had already been meeting for several months. In the course of her



discussion she lists out many contributing factors and makes a chart including all these.

- \* She takes the main reasons for TB being a problem and decides which of them needs to be dealt with immediately and which of them can be dealt with more easily.
- \* Having done this, she continues to have

discussions with the women and together with them finds ways of dealing with the problems.

Let us now examine the difference in the approach taken by Asha and that usually taken by any health worker.

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### **Asha's approach**

Asha brings the problem of one patient to the group and uses it as the basis for a discussion.

During discussions, Asha's role is to give information and help the group to think and question her about their problem.

Asha does not try to convince the group into accepting her suggestions.

It takes Asha many meetings and discussions to find appropriate solutions.

Asha does not push the group into a decision if she feels they are not ready for it.

Asha gets the group to understand what is available for them from the government and helps them to make use of it.

Asha goes alone to meet government officials in the beginning but takes members from the group with her when a decision has to be taken.

Asha starts with relatively simple problems which can be tackled at the village level and goes on to more difficult ones which require outside help.

### **Usual approach**

Health worker treats the patient as a case. Gives the necessary medical advice and health education and sends the person away.

Health worker uses flash card set to give information or gives talks on the causes and cure of TB. Does not encourage discussion.

Health worker gives solutions on the basis of her own perception of the problem and expects people to follow blindly.

The health worker gives her talks on TB and suggests her solution to the problem in a single meeting.

The health worker pressurizes the group into taking a decision, because she has timebound targets to meet. She has to meet these targets so that a report to the funding agency or her supervisor can be sent.

The health worker buys the necessary drugs from the market or gets them from the PHC without explaining to people that it is their right.

The health worker goes alone always and even if she takes some people with her she would do most of the talking.

The health worker sees the major problem as people's ignorance which she attempts to solve through health education.





As can be seen, the approach taken by Asha, the health worker in the example, helps build up people's confidence in themselves as individuals and as a group. By trusting in people's ability to deal with their problems and attempting to develop a dialogue with them, Asha actively attempts to work towards equalizing power relations between herself and the group as well as between the group and the government officials. Thus, the most significant aspect of the above example is that **the health worker's approach in dealing with a problem is as important as the final result.**

## Example 2

Mira, a health worker from Hoshangabad district of Madhya Pradesh recounts her experience with the labourer women of one particular village in attempting to solve the same problem of TB :

*"The male villagers of one large village had formed a labourers' union about eight months previously. One day, knowing that I am a doctor, a woman named Bhagwati suffering from untreated advanced TB dragged her emaciated frame to my door. She related a story of neglect and desperation. Her husband was an inactive member of the union, although she was not even aware of the existence of the union. Her husband Kaliram had failed to take her to the government hospital for diagnosis and she insisted that the elders in her family wanted her to die. We brought up the case in the union meeting, but were shocked to find total apathy towards her plight. The only concern was that her husband, who failed to attend meetings, was a scoundrel and a coward and not worth any attention at all. It appeared as if his wife was only an appendage of him. Until that time, no women had been involved*

*in the union meetings. We decided to see how the women would react to this woman's problem.*

*Approached individually and in small groups, the women's response, on hearing that TB is curable and the treatment provided for through the government PHC, was spontaneous. They decided to hold a meeting of their own to build up pressure for her treatment. This they did. In the meeting I agreed to act in a supervisory capacity to see that the treatment given through the PHC was correct and was properly understood. Kaliram took his wife to the PHC and the treatment was started. At that time I was working there voluntarily on a once-a-week basis, so I was able to intervene to some extent. We trained a local person to inject Streptomycin and, on my responsibility, a month's supply was issued from the PHC.*

*The initial phase of treatment was stormy. Bhagwati had high fever and severe lung damage. We held an emergency meeting one night to help the family, now alarmed, to decide whether to take her to the Government TB Hospital at Chhindwara. Four women related stories of their relatives who had gone to the TB Hospital. In three cases, the victims had died anyway. The fourth person, alive and well, had gone there twenty years before when the hospital was run by a mission. Nowadays the hospital is ridden with corruption at all levels and over-crowded so that the expense is great. It was pointed out that the modern treatment would be no different from that she was getting at home from the PHC. So it was decided that the wisest course was to continue to take care of her at home.*

*In the first ten days, one or two women began to visit her daily along with me, turn by turn. This was a hurdle for them, as Bhagwati is a Harijan and, although all the women were poor, they were nearly all non-Harijans,*

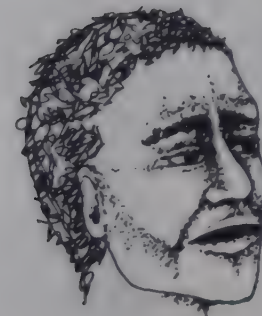




tribals, Muslims and low-caste Hindus who were used to strictly abiding by the code of untouchability when relating to Harijans. They had never set foot in the 'aangan' of Bhagwati's hut, and they had not seen her about the village for several months. It was an unforgettable sight when one woman, seeing her shrunken form on the cot, irresistibly lifted aside her veil, with which she had covered her face in shame, and exclaimed, 'Oh, my sister, what has happened to you!'

The women were so excited at the first two meetings that they decided to meet frequently. At their next meeting, the women who had already visited the house described Bhagwati's condition and observed that there were obstacles to her treatment at home. Her mother-in-law was being nasty and uncooperative, refusing to give her food and continuously commenting that she would be better dead. The rest of the family was demoralised and the house was messy. I told them that it was a problem for me as a doctor to keep on giving necessary advice to improve diet and hygiene which had gone unheeded for a week. They decided to control the mother-in-law and had a lively discussion about a proper diet for a TB patient and about fixing up Bhagwati's surroundings to make the place liveable and hygienic. The next day one woman tackled the feisty old mother-in-law and convinced her to draw a truce in the battle with her daughter-in-law until Bhagwati was fit to fight back again. Another woman sat on the edge of the cot explaining to her husband and eldest daughter what she could be fed, how to arrange that part of the hut, and how to dispose of infected sputum.

The heat was sweltering. The next day we were surprised to find that Kaliram, a bamboo worker, had woven a large overhead fan and attached a long grass rope to it. The small children were kept at a safe dis-



ance pulling the rope to and fro in turns, singing songs to the rhythm of the fan. The house was tidy and clean. The sick woman's fever was much less. She was smiling. Her mother-in-law was grumbling, but about other things, and in masked good humour. The family had got a taste of self-respect through social concern.

Recovery was steady for some time thereafter. At the end of one month, Bhagwati was anxious to get her sputum re-examined because she wanted to be able to hold her four year-old son on her lap, and she wanted to sit-in at the women's weekly meeting. She had lost her one-year-old daughter a year previously, probably because of having infected her with TB. To collect her sputum, she scrubbed a Streptomycin vial thrice with soap and boiled it in water (so as not to kill any bacilli!) and waited for the bus on the road from eight in the morning. The eight o'clock bus did not come. The eleven o'clock bus did not come. At 11.15 she began walking in the scorching sun barefoot. The PHC was seven kms. away, and she was afraid it would close, so she nearly ran the whole distance. One hour later, she reached the PHC to find that it had closed at 12 o'clock. She waited until it reopened at 4.30 p.m. and proudly offered the vial of sputum to the compounder-technician. He grabbed the vial and threw it on the ground shouting, 'We won't do your sputum test seventeen times. Bring it after three months!' Then she asked for her month's supply of drugs, only to be told that the doctor had gone and she would have to come the next morning.

Bhagwati returned home exhausted, downcast, but amazed at herself that she had been able to make the journey. Next day, she had fever, but she was determined to go back to get medicines. Kaliram accompanied her. He decided in addition, to take her to the next town and get her first X-ray done and the sputum





test repeated privately. When they faced the PHC doctor, they had to tolerate his sarcastic comment that they had 'become big people now'. All the drugs were given, but no amount was recorded on the card. In the next town, they paid Rs. 5/- for the sputum exam and Rs. 24/- for an X-ray. The sputum test was negative. The X-ray showed cavitation, but signs of active healing.

Probably because of the heavy exertion, Bhagwati was not well for about two weeks, but again began to pick up. The following month she went to a wedding and took her vials of Streptomycin and pills along with her, getting them injected by an available doctor. In the fourth month she started work again. She is a traditional dai as are all the women of her caste. An orphan, she had started her midwifery career at the age of seven, as she described to me later. In the same month, some other villagers reported to me that she was catching fish in the river with her nephew.

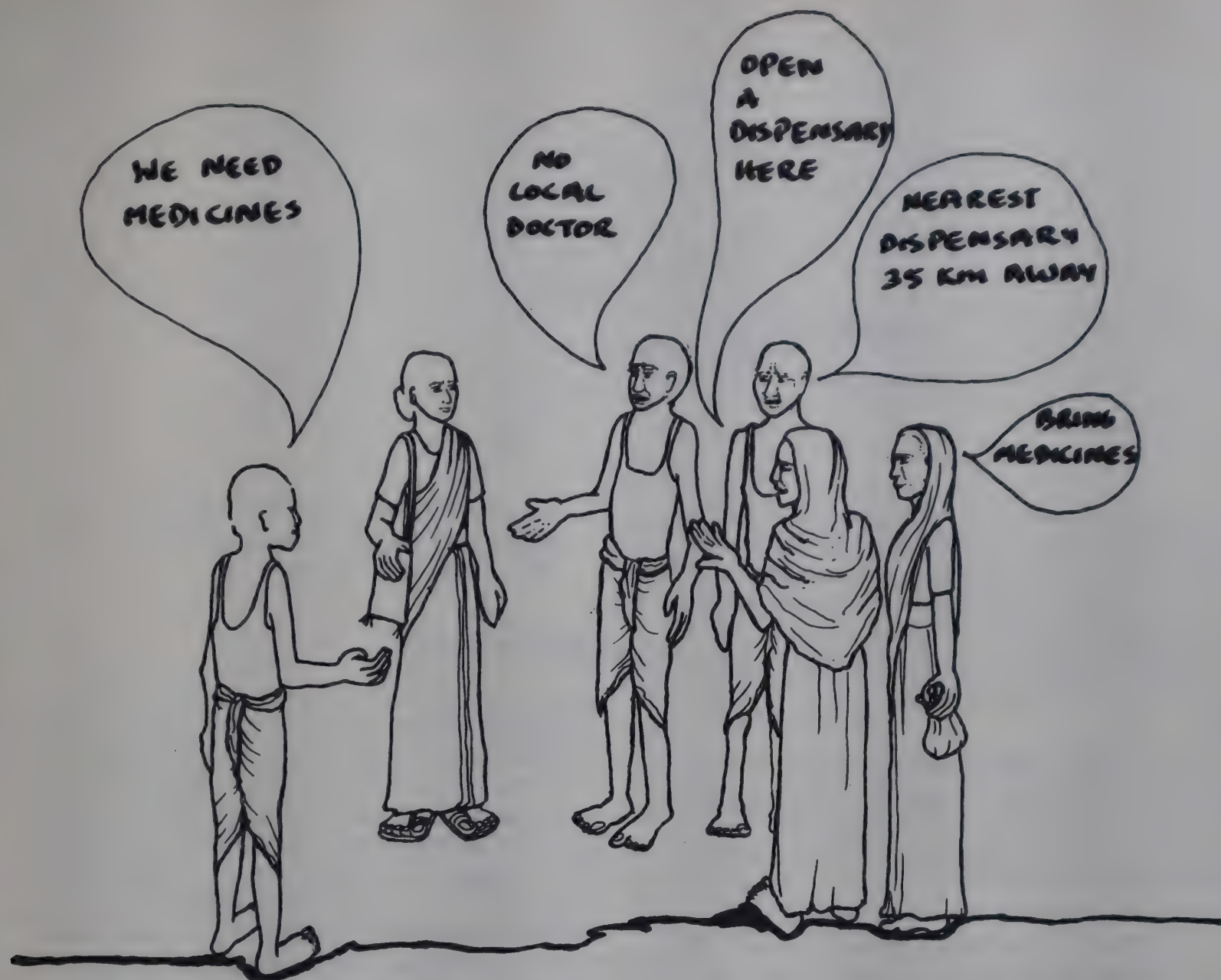
In the fifth month, Kaliram discovered that Bhagwati had brought back only white tablets from the PHC. Streptomycin had been discontinued, but he knew that anti-TB drugs were necessary, and she had been receiving both Isoniazid (white coloured) and Thiacetazone (yellow coloured) in the form of combined light-yellow coloured tablets. He took the pills back to the doctor the next day complaining squarely that she had been given 'only one' anti-TB drug by mistake. He didn't flinch when the doctor's cold gaze hit him, and after a moment's hesitation, the compounder was called and told to exchange the white tablets for the familiar light-yellow ones.

And so her treatment will go on, may be without serious lapse until she is totally cured. Kaliram now attends union meetings when he can manage it. Bhagwati attends the women's meetings. He farms his small piece of land, and plays music at weddings. They make bamboo baskets. She delivers babies. They are people of courage, like the others. In the meetings they don't talk about TB, but of the struggle to survive and thrive against the forces of the establishment."

### Mira's Approach

Mira's account is an inspiring example of what can be achieved by concerned health workers. Starting with the problem of one woman with TB, this health worker succeeded in helping people in several ways. By taking up the issue of this one woman, she was able to generate wide concern and support among several others in the village. Once the women had come together and become involved, they were able to bring about change at many levels. The relations between Bhagwati and her family members changed, the caste barrier was overcome to an extent, Kaliram started attending union meetings and he was even able to demand the correct treatment from the PHC doctor. It is significant that all the decisions were taken by the people themselves, while the health worker used her knowledge and skills in giving information and encouraged others to deal with the problem. Perhaps her most important contribution was that she did not give up easily. By constantly showing concern and belief that something can be done, she inspired others to follow her example and overcome many problems.





## Seeking solutions to the problem of a lack of medical services at the village level

One of the problems that health workers often have to deal with is the lack of medical facilities in the village. Although there may be several categories of healers such as those practicing other systems of healing, Badwas, Bhopas, dais, bone setters etc., people may still ask the health worker to start a dispensary in the village or to bring medicines with her during her village visits. This is because, as we saw in Chapter 2 of Section I, people use modern medicine for its powers to dramatically relieve symptoms of an illness and need the presence of a practitioner of modern medicine in the village.

If the health worker hears this request from several people in the village then a discussion could be started on the different ways that people could deal with the

problem. She could point out that she is visiting the village once a week only but that people can become ill during any day of the week as well. So the problem of lack of medical services will still remain even if she takes medicines with her once a week. It may not be possible for her to visit the village every day, as she has other villages to visit too. The health worker could discuss the possibility of training someone from the village itself to give treatment for illnesses. She should encourage people to think about this suggestion, and discuss it amongst themselves. If the idea is greeted with total disbelief as may sometimes happen—"What? One of us be trained? We have not been to school. We don't know to read and write" etc.—the health worker could give them examples from other areas where non-literate people have been successfully trained. However, the health worker should not push people into accepting a VHW for their village by trying to convince them of the 'need' for one. She should remember that there could be several other ways of



dealing with the problem of inadequate medical services and that VHW's are not the only solution. For example, the health worker Asha in this chapter, taught all the women who came to the weekly meeting, diagnosis and treatment of simple ailments. The health worker should therefore discuss with the people all the possibilities open to them to solve the problem.

It is also important for the health worker to remember that people may express the need for a dispensary because they may think that this would please her. They may also have other reasons for wanting a dispensary, as the following example shows:

Two health workers were repeatedly requested by the people of Channur to open a dispensary in their village. When the health workers visited Channur they found the people very welcoming and cooperative. Not only were they willing to pay the cost of the medicines and diesel expenses, but were also ready to repair the road leading to the village so that the health workers' van could come easily. Impressed by the people's willingness to agree to all their conditions, the health workers started conducting a weekly clinic there. Within a few months the health workers found that hardly anybody was attending their clinic and also, people were unwilling to contribute money for the diesel expenses. They knew that something had gone wrong. Thinking back, they remembered that the people had insisted that they come on one particular day of the week. The health workers realized that this was also the 'market day' in the nearby town and each time they returned

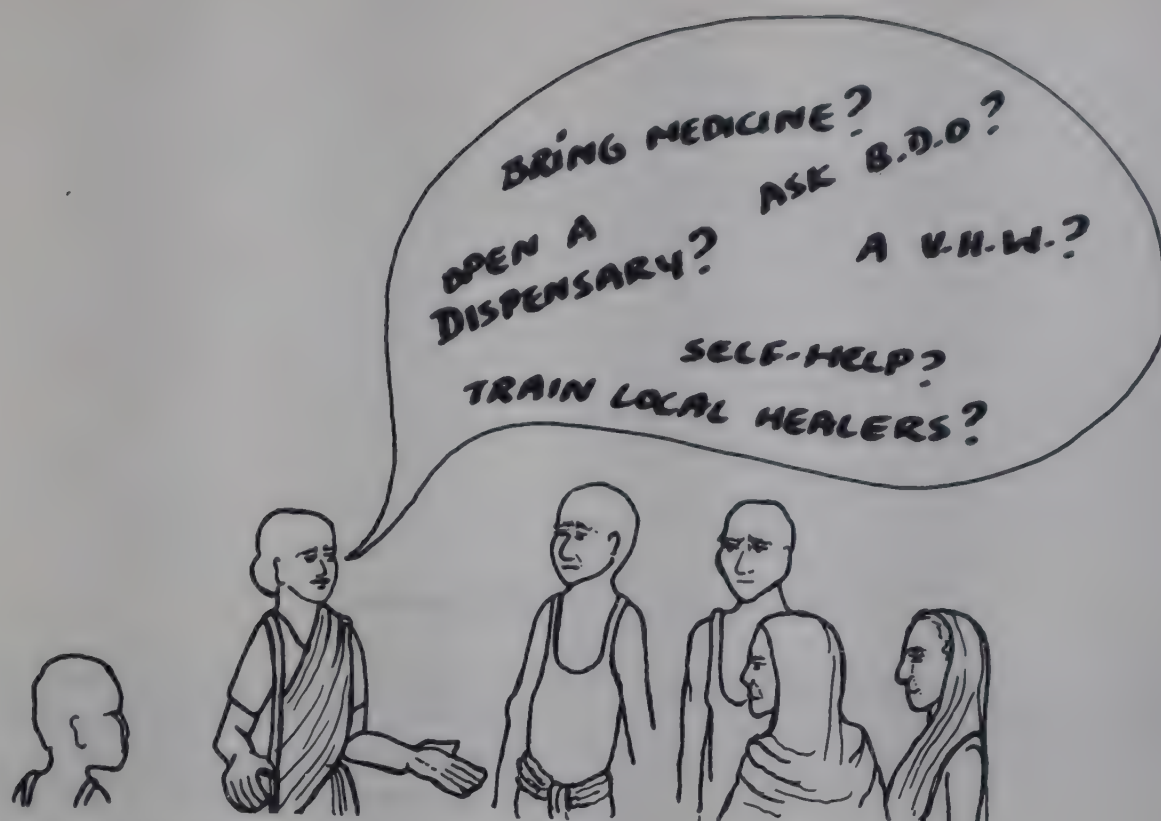
from the village after the clinic, a group of people would be already waiting to come back with them in the van!

### Selecting a VHW

We have seen in Section III that in a village which is divided into different economic groups or into different castes, everyone cannot participate in selecting a VHW. The health worker will have to accept this constraint and work around it. Firstly, the selection and training of a VHW should not become the first priority of the health worker or her programme. She needs to initiate a discussion on training a VHW only after she has had time to get to know the different people and interest groups in the village. Secondly, the selection of a VHW need not have to be an 'official' decision needing the consent of the whole village (which is not possible). Other healers in the village have not been selected through formal village meetings. Therefore there is really no need to get the whole village to select a VHW by holding a village meeting. However, it is important that the person who is to be selected is accepted by the majority of the people, who also form the poorer groups in the village. This is because the VHW has to identify and represent the interests of the poor in the village.

If the idea of training a VHW is accepted then the health worker could discuss the various qualities that a VHW should have. As the people make suggestions these can be discussed further. Once the list of qualities have been discussed thoroughly, people can be asked to suggest names of persons who might make good health workers. Because of her close contact with the village, the health worker could also help with her own suggestions. During her visits to the village she





could keep a look out for a suitable person who shows an eagerness to learn; has a sense of fairness and justice; is considered by the others as a friendly person willing to help people in difficulties. Since the VHW has to identify with the interests of the poor and oppressed people, the above qualities are important. It is possible that this attitude can develop during the training programme but the qualities need to be there in the person already. It is easier to strengthen an already existing attitude in a person than to develop a new one. It is also possible that there may be more than one person in the village, who has several of these qualities.

Each of the suggested names can be taken up one by one and the people can discuss it in relation to the qualities they have mentioned earlier on. In this process a few names will be eliminated. Finally, one or two names may remain who have many of the qualities mentioned by the group. All this will take time. It is not unusual that the discussion may take a few weeks before the VHW is chosen.

Health workers should keep in mind that it is not absolutely necessary to select a completely new person as a VHW. It is possible that the dai or a traditional healer in the village is keen to learn different ideas and skills from the health worker. He or she may also be well accepted by the poor and possess some of the qualities listed above. In such situations, the health worker could also consider along with people the possibility of training such a person.

### Training VHW's

The training given to a VHW is directly linked to the tasks she is expected to perform in the village. A health worker's view of what a VHW can and should do depends on her own understanding of the causes of illhealth. If the health worker believes that illhealth is the result of a lack of medical services at the village level and is due to the ignorance of people, then her aim would be to train VHW's to provide curative services and health education. But if the health worker believes that the basic cause of illhealth is the unfair distribution of land, wealth and power, and the inability of people to control these factors, then, the role of the VHW will also be different. A VHW's action in the village will reflect her understanding of the causes of disease. An excellent book on this subject **Helping Health Workers Learn** by David Werner and Bill Bower is already available. The book deals with all that is necessary to prepare, plan, conduct and follow-up a training programme for VHW's. Full of ideas on how to train, this book is a must for all those who are involved in training VHW's. This part of the chapter has therefore been kept short and only the most important points that health workers should keep in mind, have been discussed briefly.

This can be better understood by looking at the various actions a VHW can take when dealing with diarrhoea in the village.



### VHW's actions

- I. Instructs patients to take Kaolin-Pectin Solution : two spoons three times a day.
- II. Instructs people to drink boiled water, cut finger nails, wash hands, keep surroundings clean etc, explaining that disease is caused by germs. (immediate cause)
- III. Prepares Rehydration fluid and gives it to the patient.



Each of the above actions of the VHW creates dependence, does not help people to deal effectively with their health problem and mystifies health care.



- IV. Helps people to prepare and give the rehydration drink themselves.

### Resultant effect

The patients blindly follow the VHW's instructions. They do not understand why this medicine is to be taken or how it will help. They follow the VHW's instructions as they think that the VHW knows more than them because of her special training. The treatment is not effective in treating diarrhoea. If the disease does not get cured, people lose their faith in the VHW. Even if the diarrhoea gets cured, the people are still dependent on the VHW for treatment the next time someone gets diarrhoea.

People are made to feel that they themselves are to be blamed for their illness. They are made to feel dirty and ignorant. Since the health worker was just like them before her training, people feel the health worker is now acting superior. The impractical advice she gives, further strengthens this feeling.

Though simpler, less expensive and more effective treatment is used, the knowledge still remains with the VHW.



People learn to treat the disease themselves. This increases their confidence and reduces their dependence on the VHW.



### VHW's actions

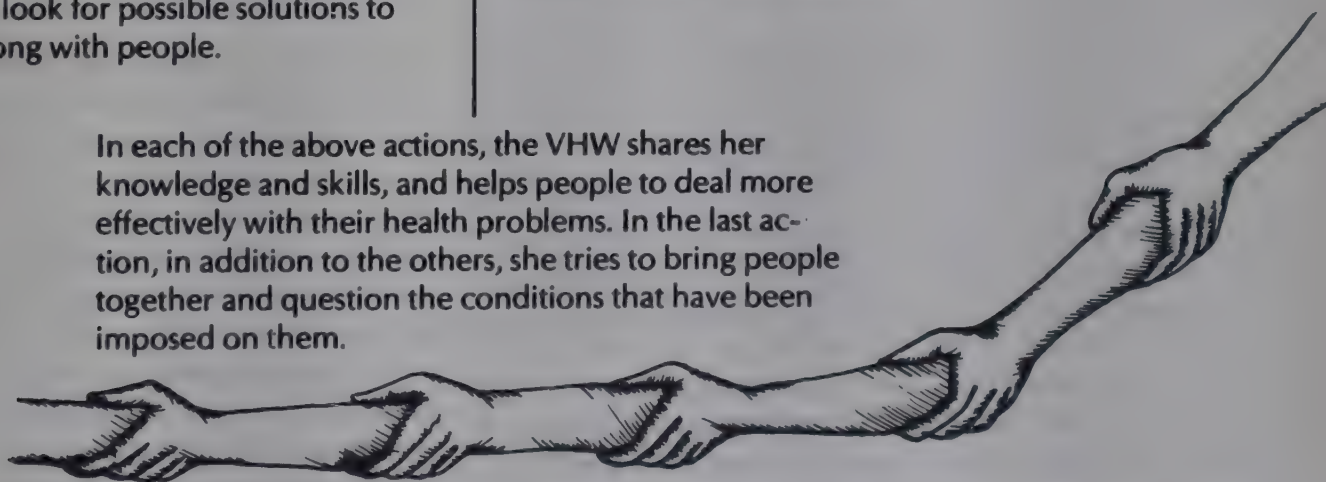
- V. Helps people to prepare and use rehydration drink, explains simply the reasons for taking this drink and discusses why medicines are not useful in treating simple diarrhoea.
- VI. Discusses the social, political and economic causes of diarrhoea in the village and raises questions on the unfair distribution of land, wealth and power in the village. Also discusses why doctors give injections and medicines for simple diarrhoea. Tries to look for possible solutions to these questions along with people.

### Resultant effect

Health care seems less mysterious and within people's power of understanding. This helps to reduce the hold of the medical profession on the people and also reduces dependence on medicines.

People are encouraged to think about the deeper causes of illhealth. Instead of accepting their 'fate', they begin to realize the possibility that it is in their power as a group to collectively think of ways of changing their life situation.

In each of the above actions, the VHW shares her knowledge and skills, and helps people to deal more effectively with their health problems. In the last action, in addition to the others, she tries to bring people together and question the conditions that have been imposed on them.



Thus, the training that is given to a VHW is directly linked to the tasks she is expected to perform in the village. Her role need not be limited to diagnosis and treatment of ailments and sharing knowledge alone. Although these functions are important in themselves, her most important function is to help poor people gain confidence in themselves. Depending upon the economic and political situation of the villages in which the VHW is working, the health worker's own understanding of the reasons for disease and sickness, and the extent of trust placed in the VHW, her role can de-

velop and grow in scope and responsibility. Her training too would need to include a wide range of skills — both curative as well as social and analytical skills.

Three examples of the different kinds of work that VHW's have done are given below.

**Organizing people to get services from the government:** A health programme in Tamilnadu decided that they should shift their priority from providing MCH services to educating the women in the villages about economic and social issues. Instead of providing ser-





vices, the women should be organized to demand services from the government. The health worker's main function was to educate women about all the government programmes, meant for the village people but which never reached them. Working in this direction led to the women "flooding the government PHC's to get their children vaccinated". The much surprised health authorities then decided to collaborate with the health programme to provide health services in these villages.

This experience gave the women confidence in their power as an organized group. The women went further, to take up other issues which affected them. One such issue was that of drinking water. In one village there were no proper facilities for drinking water. The committee of the women's group had gone several times to the Panchayat Union Office but this effort proved to be a waste of time and money. So they decided to go in large numbers to get their demands for drinking water met — this time carrying their earthenware water pots. But as always the Panchayat Office was not concerned. So the women broke their pots in the office and returned home. This dramatic gesture had its effect. Within two weeks the Panchayat officers came to the village to discuss the problem and before the end of the month, a drinking water pump was installed in the village. The men of the village could not believe their eyes because they had given up the issue long ago as impossible and unrealizable!

**Helping to break myths:** In India, traditionally, menstruation has been associated with the impurity of women. During these three or four days, women believe that touching pickles makes them get spoilt or going near certain plants causes them to wither away. This myth of a menstruating woman being impure is so deep-rooted in most Indians that even educated wo-

men follow the customary rules during menstruation. In several parts of rural India, it is commonly believed that a menstruating woman has an evil influence on standing crops and the crops get ruined. Women often absent themselves from working in the fields during such times.

A VHW in Maharashtra had been discussing these myths with the women in her village. Because of the trust that the health worker had established among the women, one of them got the courage to experiment for herself the truth of this myth. Once it was proved that nothing happened to the crops there was more confidence to test other such myths.

**Organizing a cooperative:** A group of village health workers in Mexico realized that the problem of nutrition in their village was related to land ownership. A few people controlled most of the good farmland, not legally, but because they used to bribe the government engineers from the Land Reform Programme. These wealthy landlords lent maize (corn) to the poor farmers at planting time. Then, at harvest time, the farmers had to pay back three times as much maize as they were loaned. As a result, the families of the poor farmers sometimes did not have enough food to eat. Some had to sell everything to pay their debt, and were forced to move to the slums of the cities.

The basic problem was that poor farmers did not have a chance to keep and eat the food they grew. The cause of their problem lay in the unjust and illegal possession of the best farmland by a few wealthy landholders.

The just solution would some day be redistribution of the land. But the obstacles to achieving this were too big for the poor farmers to overcome immediately. Instead, the local health workers helped organize the





poor farmers to start a cooperative corn bank, which lent maize to families at very low interest rates. To permit such low interest rates, the maize had to be well protected from insects and rats. So the health workers built low-cost sheet metal bins to store the maize.

Now that people could borrow maize at low interest rates, they were able to keep and eat most of the food they grew. This success of the people in overcoming at least a part of the problem, has given them courage and hope to keep moving forward together until the day comes when the bigger problems can be solved.

These are all small beginnings, but nevertheless important steps in developing a sense of confidence among those, who for so long had experienced only powerlessness and little personal worth. It is important to note that in India so far the potential of VHW's in organizing people around social and economic issues has largely been ignored. This is often due to the health programme's own limited understanding about the real reasons for disease which in turn is reflected in the training given to the health workers. It is also because health programmes are unwilling to face the repercussions which would result from the VHW's taking up such issues. However, the role of the VHW as an activist is her most important and useful role and one which has to be faced at some time or another if the health programme is serious about tackling the root causes of sickness in a village.

On the contrary, both in the government and in the voluntary health sector, it is emphasized that the VHW's main role is to give health education. In fact, the Shrivastav committee stated that what was necessary was not professional expertise but nearness to the village and confidence and rapport with the people. Therefore, the government's training programme and

many health programmes limit the curative role of their VHW's to the treatment of three or four symptoms such as fever, simple diarrhoea, cough and may be worms. Except for aspirin and piperazine the medicines the VHW's are allowed to use have hardly any clinical value. According to the health programme staff, at least these medicines are 'safe'. Such programmes, seem to ignore the fact that people can get without a prescription, a number of drugs ranging from broad spectrum antibiotics to tranquillizers. All these drugs are commonly used and misused by the people. Yet, because these drugs are 'dangerous', the VHW is taught nothing about them — neither their uses and misuses, nor their risks. The VHW's limited or almost non-existent knowledge of medicines in a situation where many medicines are widely used, reduces people's respect for her and makes her less effective. Further, the idea of training VHW's originated because of a lack of medical services in the village. It is therefore important that the VHW be trained and permitted to diagnose and treat more of the common diseases and illnesses at the village level.

For a VHW to be effective in her work, the health worker should be supportive and help build up the confidence of the VHW in herself, as well as people's confidence in her. This means for example, helping the VHW to run the weekly village clinic rather than the other way around; helping the VHW learn about each patient; teaching her how to examine, diagnose and treat them, etc. Most important, it means that the health worker does not 'take over' from the VHW during the village clinic. By taking over from the VHW, the health worker lowers the VHW in the eyes of people. This occurs quite commonly in health programmes and patients often end up waiting to see the health worker during the weekly village clinic, bypassing the



VHW completely. The role of the VHW in such a situation may get reduced to maintaining an orderly queue. While such a practice should be discouraged, it may become very difficult for a health worker to refuse to see patients first. It may seem to the people that the health worker is refusing to provide assistance even when asked. One way of overcoming this problem is to get the VHW's active help in diagnosis and treatment in the presence of the people. In some health programmes, older and more experienced VHW's undertake supervision which increases people's faith in their own VHW's. (Refer to **Helping Health Workers Learn** by Werner and Bower for more explanations on this.)

Another important aspect of training involves the kind of **attitudes** transmitted to the VHW during training programmes. It is not enough to say during the training that the VHW should develop positive attitudes such as sharing of knowledge and skills with people, respecting people's customs and traditional practices and encouraging people to think and not accept blindly. These attitudes need to be reflected in the day to day functioning of a health programme. For instance, if the staff of a health programme shout at a patient because he has worsened his condition by going to the local healer, privately make fun of the local healer if he comes to the health centre for some treatment and make no attempt to incorporate good traditionally followed remedies at the health centre level, then, such a health programme is hardly in a position to explain how VHW's should respect their traditions.

Similarly, if during the training programme, VHW's are not encouraged to voice their doubts or ask questions; teaching is done through the lecture method (which strengthens the feeling that the teacher knows all and the students are dumb), and the VHW's are taught only

a certain already specified amount and no more, then the VHW's are very likely to absorb the same style of functioning with their own people. Such VHW's can hardly be expected to help people think and question. Finally, a health programme which in all other respects is rigidly hierarchical cannot reflect attitudes which will encourage group decision making and the development of trust among the VHW's, and between the VHW's and the people.

All this means that while the development of positive attitudes in VHW's are an important part of their training, these attitudes do not develop on their own. They need to be reflected in the practical functioning of a health programme. Health programmes, must therefore examine their own attitudes towards village people before assessing those of the VHW's whom they are training.

Another aspect of providing active support to the VHW, is giving feedback about a patient referred by the VHW. The health worker should always explain fully and in simple language the details of the patient's problem to the VHW. This encourages further learning and helps in the development of new knowledge and skills.

### **Should the VHW be paid or not?**

This question has been discussed repeatedly in several health programmes. These discussions can be summed up in the following two view-points. One view states that the VHW should be paid because she is expected to do a lot of work in the village. If the staff of a health programme are being paid a salary, then how can a VHW, whose economic need is greater, be expected to work without one. The other view is that the VHW should not be paid because she is from among the



people and should not be made to feel different from them by being given a salary. She should therefore be encouraged to serve her people and work for the joy of it. The question of payment seems to become for health programmes, a problem that needs to be solved, because of two reasons:

1. The health programme expects the VHW to work for several hours each day, thereby preventing her from doing the work she used to do to earn an income. The need to compensate her for the income which she loses because of the new health activity thus becomes an important issue. Such a health programme usually has a list of predetermined 'duties' for the VHW, such as:
  - visit 10 houses every day.
  - make special visits to under-five children and pregnant women who are "at risk".
  - keep records of vital events.
  - attend weekly classes in the health centre.
  - help in the weekly clinic run by the project in the village.
  - conduct deliveries and give medicines to the sick.

A list like the above, shows a lack of understanding of the village situation on the part of the health programme. For instance, is it really necessary for a VHW to visit 10 houses each day, a task that would take at least 2-3 hours? This requirement might have been necessary for ANM's working in villages before the VHW's concept became popular. As the ANM's were mostly outsiders and did not know the village people well it became necessary for them to go from house to house collecting vital statistics such as births, deaths, new pregnancies etc. But a VHW is from the village in which she works. Every village has its own channels

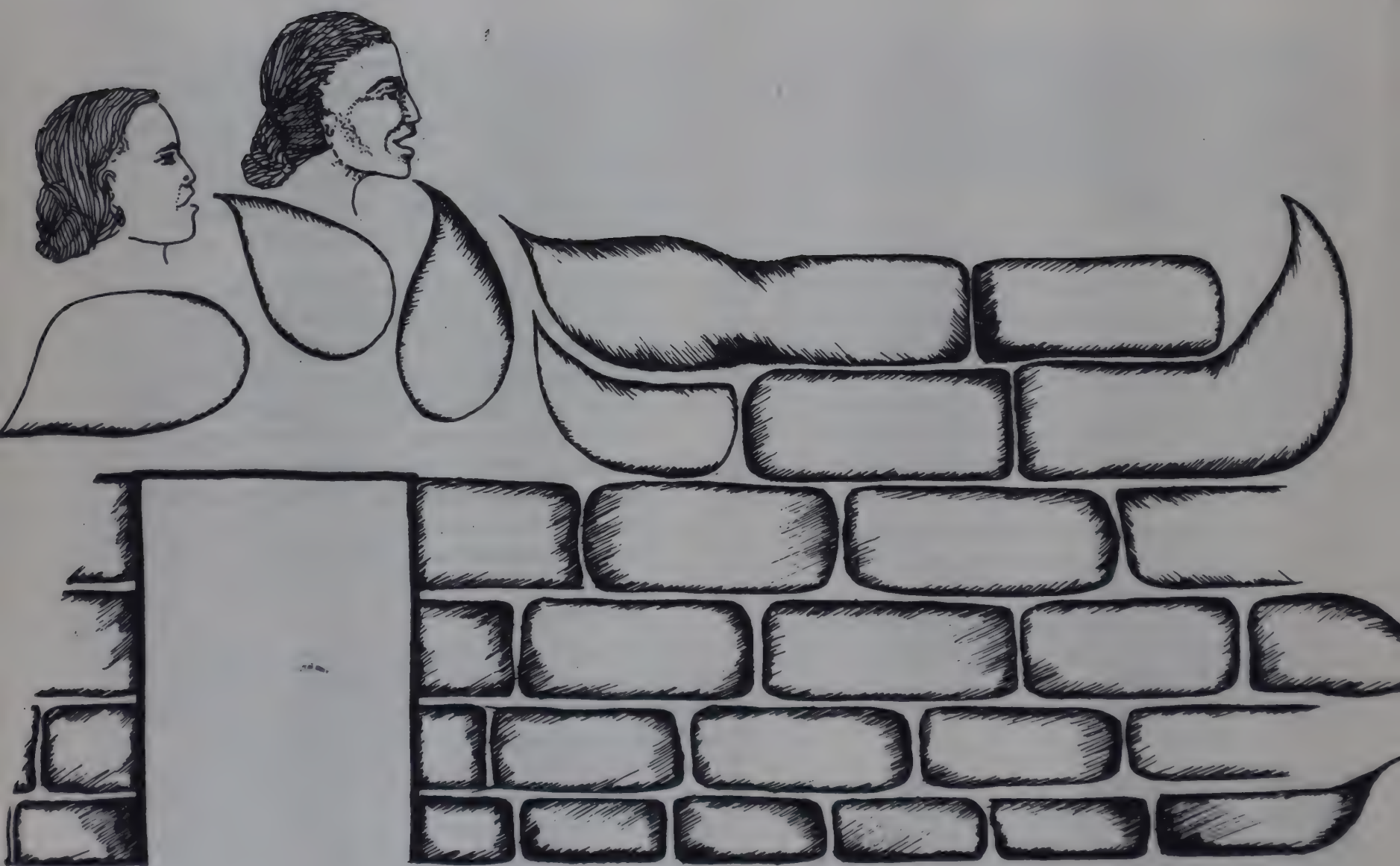
of communication to spread news. Women meet when they go for their morning ablutions, for fetching water and collecting firewood and while working in the fields. News is often exchanged during such times. The VHW would therefore be in a better position to get more accurate information and earlier, without visiting houses daily, as compared to an ANM.

2. It is basically the **health programme's need** to have a VHW so as to help them in their village work by providing the much needed 'link' between the village people and the health programme. Many health programmes, impatient to train VHW's do not pause to consider if a village really needs one. Neither do they give people sufficient time to absorb the idea. The health programme appears to be in such a hurry to select a VHW that the people naturally start viewing the VHW's job as a salaried 'post' which the health programme wants to fill.

In the voluntary sector in India, there are a variety of experiences with regard to the payment of VHW's— from programmes which do not pay their VHW's at all, to programmes where the village people pay their VHW's in kind during the harvest season and those where payment is shared between the village and the health centre. Many health programmes, funded by outside aid usually give a monthly salary ranging from Rs. 50 to Rs. 100 to the VHW's. Such programmes often find it difficult to manage when funds for their health programme are withdrawn or reduced by funding agencies.

Thus, to pay or not to pay a VHW depends on the role that the VHW is expected to play and the support the poor people in the village are willing to give her. The question of payment does not arise when the selection





and training of a VHW is done, not to meet the needs of the health programme, but rather, to help the poorer sections of the village to have a well trained health person in the village and one who shares problems and aspirations.

292 To conclude, in attempting to deal with the problem of a lack of medical services in the village, the health

worker along with people needs to consider various possibilities. Training a VHW may not necessarily be the best or the only answer to the problem. While it may be possible to select a VHW who will represent the interests of the poor in her village, **the decision of whether or not a VHW is needed in the village really rests with the people.**



## 4 : Skills a health worker needs to develop

In the previous three chapters of this section, we have talked about how the health worker can begin to develop an understanding of the health problems in the village and help people to deal with them. From the discussions so far, it is clear that while working with people, the health worker needs to have information of one kind or another at every stage, to plan her activities. While choosing villages, she will require information about the area, the kind of people living in the villages and the government facilities in them. During her visits to the villages in which she has decided to work, she will need to know more about the lives of people, their problems and what they think and feel about them. When helping people to deal with their problems, the health worker will require information to plan out an activity and to know how far it has been successful. Collecting useful information is thus a skill which the health worker will find necessary for her work.

There are several ways in which the health worker can collect the information she requires — through observation, individual conversations, group discussions, through a survey or by looking at her own and government records. Some of these methods of collecting information have already been discussed in earlier chapters. This chapter deals with group discussions and surveys.

### Group discussions

The purpose of a group discussion is to help strengthen the group's understanding of problems in the village and their possible solutions. Through a process of asking questions, sharing opinions and thinking about situations, the different members of a group can develop their own and each others understanding of their problems (see pages 268 to 282). In this process, the health

worker's role is to encourage people to look at all sides of a question and draw their own conclusions. She should avoid brainwashing people, i.e., making people look at things the way she looks at them or in suggesting solutions which she wants them to follow. This would defeat the very purpose of a group discussion. Given below are some suggestions which can be of help to a health worker with regard to this :

- \* The topic of the discussion should be of importance and interest to the group. For instance, the health worker should be able to anticipate health problems that arise at particular times of the year such as diarrhoea during the dry months and malaria, eye and skin infections during the rainy season. Her effort should be to discuss these problems just before the season starts so that people are adequately prepared to deal with the problem.

However, at the time when the health worker is having discussions on diarrhoea, several families may also be planning to migrate to cities in search of work. So if there are TB patients in the village who are taking Streptomycin injections as part of their treatment, it would become important for her to also discuss the question of how these people would continue their treatment in the months that they are away.

- \* The health worker's role should be to ask questions in such a way that people are encouraged to express their views and to get people to think about things they may not have thought about. For instance, Asha the health worker (in chapter 3 of this section) asked questions to find out the group's views regarding signs and symptoms of TB even though she knew the answers and could have simply told all this to them. Similarly she got





the group thinking about how to arrange for TB medicines in the village—something which the group had not thought about seriously till then.

- \* Questions should be as open-ended as possible, and should not contain the answer in them. For example, if a health worker asks, “Don’t you think we should discuss the problem of measles?”, the group will know that the health worker wants them to discuss this topic and will probably say “yes”, to please her. A question such as “How does the doctor treat you when you go to the PHC?” will produce vague answers like “okay”, “badly”, “well” etc. But a question like “What happens when you go to the PHC?” will probably bring out a wide variety of experiences which can then be discussed. The scope of the discussion could also be broadened further, to discuss the whole of the government health services structure.
- \* Sometimes, a story, folk song or picture can be a good way to start a discussion on a subject which people have not thought about very consciously. For example, the following story, a folk tale from Kenya, was used by a women’s group in Tamilnadu to discuss the role of women in the family and society.

Once upon a time very long ago, God needed some one to help him with something he wanted to have done. He turned to the women, who already had their hands full even in those days. Just then they were sitting making milk jugs and water basins and mats to cover the huts. God summoned them, “Come here! I shall send you on an important mission.” The women replied, “Yes, we are coming, but wait a moment, we shall just finish our work here.”

After a while, God summoned them again. “Wait a moment, we are nearly done. Let us just finish our mats and jugs,” said the women.

The men did not have to milk, build houses, fetch wood and water as the women did; their only duty was to put up a fence and protect the livestock. So since at the moment they had nothing else to do, they came running at God’s call and they said, “Send us instead, Father.” Then God turned to the women and said, “Hereafter, women, your chores will never be done. When one is completed then the next will be waiting for you. Hence, the men may rest since they came at once when I called but you women will have to work and toil with neither pause nor rest till the day you die.”

And so it has been ever since.

The health worker can use such stories to generate discussions on those aspects of women’s lives which may be of direct relevance to the group at that point of time.

Folk songs can be another method of discussing good aspects of traditional culture which are fast changing because of various factors such as government policies. For example, tribal folk songs on forests could be used to start discussions on the negative impact of the government forest policy on the life of tribals. Similarly, the picture given in the flashcard set “The Wise Vithoba” (see pages 180 to 186 of Section III) could be used to have a discussion on myth versus reality.

- \* It is important that the health worker does not express her own opinions first and thereby pressurize





the group to accept her point of view. It is much better that she allows the group to develop their own analysis of the social situation from their own experiences. But if asked for her opinions she should be willing to share them and make it clear that the group need not think the same way as her.

- \* The health worker should be prepared for the discussion to go in a direction which she did not expect. For instance, during a discussion on the uselessness of medicines in treating diarrhoea and the effectiveness of home remedies, the members of a group may continue discussing the experiences of their mothers and grandmothers not only in relation to diarrhoea but also with regard to bringing up children on the whole. While such a discussion may be both amusing, interesting and enlightening, it may be worthwhile for the health worker to stop the discussion after some time and bring it back to the topic of diarrhoea.

To take another example, when a group is discussing the danger signs of diarrhoea and when the child should be taken to the hospital or health centre; if someone raises problems related to making such a visit to the health centre, it is important for the health worker to discuss these issues also. There is no point in simply discussing with people when to take the child to the hospital without also discussing if it will be possible for them to do so or not.

Sometimes, a discussion may go on to a topic which is rarely discussed such as wife-beating. For example, a group had been discussing the advantages and disadvantages of various methods of family planning. Somebody in the group mentioned that it seemed as if, besides sterilization,

none of the contraceptive methods were really worth using. Further discussion led to the question of women having to do as their husbands wanted and being beaten up if they disagreed. This led to the question of the men being drunk when they came back from the fields and someone mentioned that they could not be blamed since they got part of their wages as alcohol.

Though this discussion was not directly relevant to the advantages and disadvantages of various contraceptives, letting the discussion take its own course brought forward many connections which may not have been discussed otherwise. A health worker will have to develop this skill of deciding when to allow a discussion to continue or not and to be able to sense the mood of the group. People may stray into various topics because they may find these more interesting than the topic they were originally discussing or the discussion may shift ground because people are looking at different aspects of a problem which may seem unrelated at first.

The health worker should consider it an achievement if people are willing to freely express feelings which they may not have shared with her before and do not pick and choose their words carefully in front of her.

- \* Sometimes strong differences of opinion may arise in a group leading to heated discussions which may generate ill-feelings among the group members. Occasionally such differences may lead to the group becoming divided and may even threaten to break up the group. The health worker will need to be particularly skillful in handling such situations. It may not be possible for everyone to





come to an agreement on all matters. The health worker's effort should be to bring out the different points of view and discuss them in a way which does not refer badly to any of the group members. She could also show how each issue has different sides to it.

However, sometimes even this method fails. Here is how two health workers dealt with this problem. In one case, at the height of a heated argument between several members of the group, the health worker stopped the discussion and said she wanted to tell a story. She then proceeded to tell the story of the seven blind men who were asked to describe an elephant. Each person's description varied, depending on what each had been able to feel of an elephant's body. One person said an elephant was like a pillar, another said it was like a snake, a third said it was really like a fan and so on. The group soon realized what the health worker was trying to convey and realized for themselves that there were many ways of looking at a problem. They also realized that each one was correct in a way because of his/her own experience and further, that all experiences have to be pooled together to get the whole picture.

Another health worker dealt with a similarly heated argument in the group by putting a dot on a piece of paper and asking the group to tell her what they saw. Most people seemed surprised and said, a dot, of course. The health worker then pointed out how the group had focused their attention on a small black dot and left out the entire blank paper which she was holding up. This caused a lot of amusement in the group and the group members who had been shouting at each

other were able to laugh at themselves and share their amusement with each other.

When dealing with such situations, the health worker's effort should be to end the argument in a way which does not leave group members feeling antagonistic towards each other.

The health worker can use her imagination to look at and deal with people's problems. The extent of participation and liveliness of the discussions is an indication of the extent that people find it interesting. Regular attendance, an eagerness to come together, and new members wanting to join the group are also an indication that the group is helping people in some way.

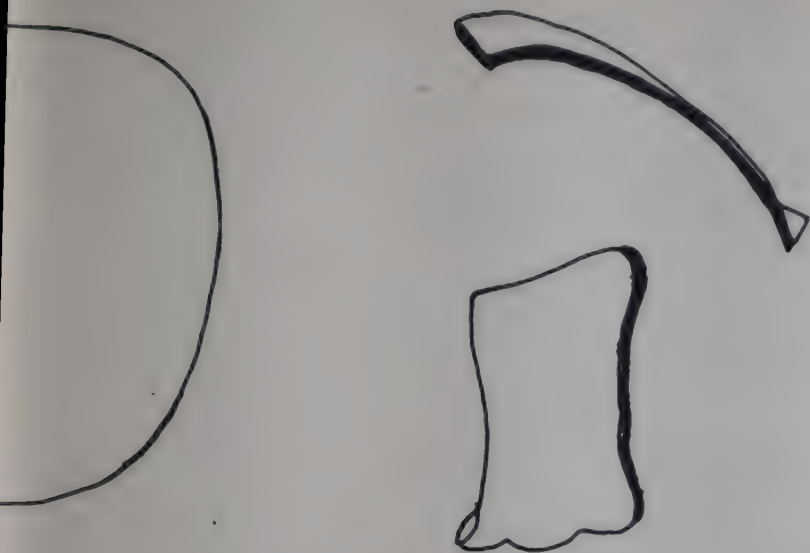
## Collecting Information

### Survey

During the course of her discussions with people in the village, a need may arise for them to get information from all the people in the village. The group may need to know the number of TB patients in the village, or there may be a need to find out the nutritional status of children belonging to the different economic groups or there may be a need to find out the amount of seed required by each farmer to sow his fields. The nature of the information required will of course depend on what the people and the health worker have been discussing and what they need the information for. In such situations, a survey can be a useful way of collecting this information.

A survey is a method of collecting specific information in a short period of time by asking the same set of questions to all concerned. If used properly, it can be a





useful way of collecting information such as

- the number of people who are literate in the village
- the immunization status of children under five
- the number of families who regularly migrate outside in search of work, etc.

While a **survey can be a good way of getting numbers**, this method is not always appropriate. For instance, people may want to know the amount of money each family has borrowed from the money-lender in order to start a savings scheme, but a survey is not likely to be a good method of getting this information. This is because people are reluctant to give precise and specific information on such a sensitive subject. It is also possible that many might have borrowed small amounts of money over a period of time and therefore are unable to remember the total amount borrowed by them. The best person to give this information is of course the money-lender but he will be reluctant to reveal this information for obvious reasons. Similarly a survey may not be a good method for collecting information regarding abortions, landholdings etc.

Besides this, a **survey is not a good way of getting people's opinions and feelings**. A discussion is much more suitable for such a purpose. A survey can thus be a useful method only to find out specific information regarding a subject which people can easily give answers to.

Surveys are also an appropriate method of collecting information only at certain times. For instance, health workers often use surveys to find out information about a village even before they have got to know the people. They feel such an approach is necessary to plan their activities and to set targets for their work. However, people in the village are usually resentful of

such an approach and rightly so. Doing a survey to find just basic information about the people in the village is equivalent to a new staff member of a health team distributing a questionnaire to the other staff members to find out their name, age and sex. Using a survey in such a way clearly reflects a lack of sensitivity and respect for people on the part of health personnel. When approached this way people are usually reluctant to give information and distrust the motives of the person asking the questions. Surveys cannot be a substitute for getting to know people and are therefore appropriate only when people and the health worker have got to know each other. It is also important to remember that a survey should be conducted only after the people have understood the purpose for which the information is being collected.

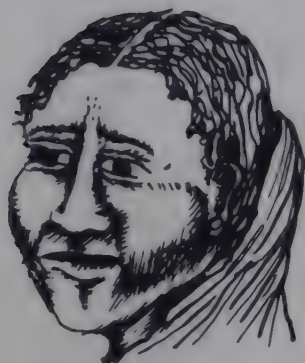
It is also preferable if a survey is done by the very people who are likely to benefit from the information collected. Such people will be in a better position to explain the purpose of the survey to the others. They may also be able to judge the accuracy of the information collected much better than the health worker. For instance, if a TB survey has to be done, those who have suffered from the disease or are concerned about this health problem could be suitable people to do the survey. Similarly, mothers of young children could collect information regarding all the underfive children in the village, or it may be possible to train older children to find out information about their brothers and sisters and other small children in the village.

### Preparing questions for the survey

Together with those who are going to help her, the health worker can prepare a list of questions for the survey by following a few guidelines.

- \* Write down the purpose of the survey





- \* Make a list of the information required for this purpose
- \* Write down the questions that would be suitable in getting this information.

(For the different kinds of questions that can be asked refer to Chapter 2 of this section).

Given below is an example of how a survey can be made for the purpose of collecting information regarding the number of TB patients in a village.

### Example I : TB Survey

#### Purpose

To find out how many people in the village have TB so that a regular supply of TB drugs can be arranged from the PHC.

#### Information required

- \* Name of person who has TB or could have TB
- \* Which family does this person belong to
- \* Is the person taking TB medicines or not
- \* From where she/he gets the medicines

#### Questions

- \* To find out the name of the person who has TB or could have TB.

TB is a dreaded disease and people are reluctant to admit that they have the disease. Many may not have got diagnosed as TB patients. Direct questions such as "Do you have TB?" or "Does anyone in your family have TB?" may therefore not produce the right answers. It is better to ask a series of questions such as

- Has anyone in your family been coughing for more than three weeks?

- If yes, what is the colour of the sputum?
- Does anyone have fever in the evenings or in the night?
- Has anyone, child or adult, lost a lot of weight in the last one month?

The last question can also be asked in a different way, for example, "Do you feel that your clothes (shirt or blouse) have become loose for you?"

- \* To find out to which family the person belongs.

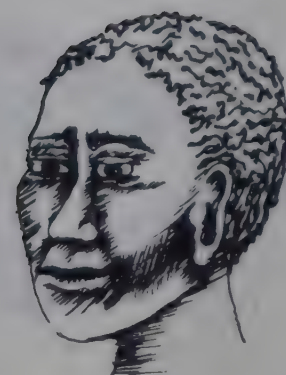
This need not be asked because the health worker can write down the malaria number as the house number. (This is usually marked in red on the wall of the house next to the door). Sometimes the malaria numbers are not marked clearly. In this case some other method of identifying the house needs to be thought of. The health worker could make a map of the village with all the houses and important landmarks (such as tube-wells, post office, Sarpanch's house etc.) marked clearly on the map. Each house can be given a number on this map. The same house number can then be used for the survey. This way it would also be easier to check whether all the houses have been surveyed or not.

The people in the village may have their own ways of identifying each house in the village. The health worker could find how people do this and adopt it if it is convenient, for the purposes of the survey.

- \* Is the person taking TB medicines or not?

Sometimes a person may have been diagnosed as having TB but does not know this. Or he/she may simply say that he/she has been given medicines for cough and weakness. It would therefore be better if the health worker or the person doing the survey sees the medicines for herself.





If the person says that he/she has been taking the medicines regularly but is unable to show them to the health worker, then it means either that this person is not taking the medicines regularly or for some reasons does not want to show the medicines to the health worker.

The person doing the survey could also carry small samples of the different TB drugs and check out if the person has ever taken these drugs. If someone has taken these medicines, it will be possible for this person to identify them. This way, a health worker can find out whether or not a person has taken TB drugs, without asking a direct question.

\* From where does the TB patient get the medicines?

This is important to find out since the purpose of the survey is to arrange a regular supply of TB medicines in the village. The person may already be registered as a TB patient at the PHC, which would need to be noted down. If the person is taking treatment from a private practitioner and buying medicines from a chemist then she/he needs to know that these medicines are supposed to be given free of cost by the government to all TB patients registered at the government centres.

From the above set of questions, it is clear that the amount of specific information that the health worker requires is little and can be noted down for each family in half a page of her notebook. Also, the questions are simple enough for a group of interested persons in the village to conduct the survey themselves.

### **Understanding the survey findings**

From the information collected through the survey the health worker can group the people in the village into four categories.

1. Those who know that they have TB and who are taking treatment for it.
2. Those who have symptoms which suggest that they have TB but who need to be examined to confirm this.
3. Those who may have TB and are taking treatment or who may have had TB and took treatment but do not want to say it openly. It is also possible that they genuinely do not know about it themselves.
4. Those who do not show any symptoms of having the disease.

The health worker will now need to visit the first three categories of people to find out more specific information from them. From those who have TB she will need to find out when they were diagnosed, for how long they have been taking treatment and if they have been irregular, what have been the problems they have faced.

For the second and third category the health worker needs to get more information about their symptoms and examine them if possible. These persons would require an examination of their sputum and an X-ray of their chest. If they are willing, the health worker could arrange for them to go to the PHC or arrange for the PHC team to come to the village. In case the health worker wants to organise BCG vaccination as part of this campaign against TB in the village she would need to find out additional information about the number of children under three years of age in the village.

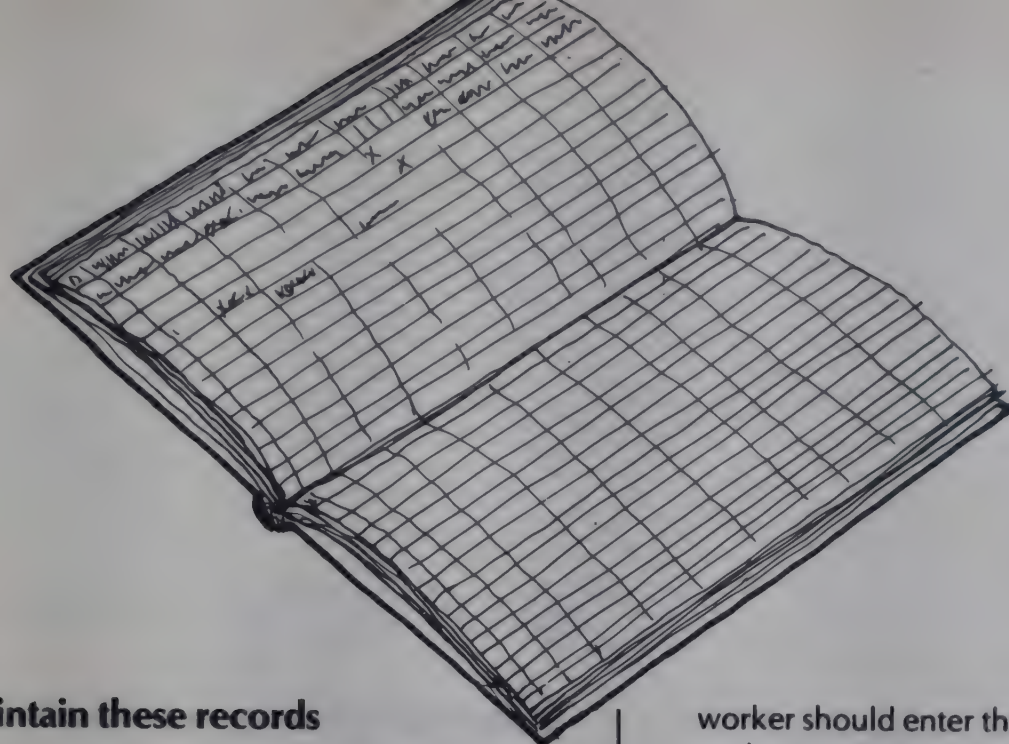
### **Collecting information through records**

A survey such as in the example above gives the information required at one point of time. To get informa-









### How to maintain these records

1. It is easier for the health worker to give antenatal coverage if she knows which pregnant women are going to deliver in a particular month. The health worker should therefore **enter the names of pregnant women under the month they are due for delivery**. For example, if the health worker sees a pregnant woman for the first time in May and she is due to deliver in October, the health worker should enter her name in the month of October. In order to maintain her record like this, the health worker would need to draw the columns for each month on a separate page of her register.
2. **Parity**: This means the number of times a woman has conceived before this present pregnancy. This includes all previous full term deliveries and abortions. For example, Kamla was pregnant three times before this pregnancy. She had two normal deliveries and one abortion. Her parity will be written like this: P2+1. (P stands for parity; 2 stands for full term deliveries; 1 stands for previous abortion). This needs to be entered into column 6.
3. **Expected date of delivery (EDD)**: The health worker needs to enter the EDD in column 7. EDD is calculated as follows. Find out from the mother the date and month of her last menstrual period. Add seven days to this and subtract three months from this. For example, Gowri had her last menstrual period on the 10th of May 1980. Her expected date of delivery will be 17th February, 1981.
4. **Date of first ante-natal check up**: The health worker should enter the date on which she examines a pregnant woman for the first time. If the woman is seen and examined by her for the first time during her second trimester, then the health

worker should enter the date of the examination under Trimester II. The columns of Trimester I and III should be left blank. The information from this column will tell the health worker how early was she able to contact pregnant women in the village.

5. **Tetanus toxoid**: The health worker should enter the dates when tetanus toxoid was given to the pregnant woman in column 9. This would help her in finding out the date when the woman is due for her next dose of tetanus toxoid and the health worker will be able to tell the woman accordingly. It will also help the health worker to know how effective the tetanus toxoid coverage is.
6. **Delivery**: When the health worker comes to know that a pregnant woman is delivered, she must visit the woman to find out the details of delivery. These details need to be entered in column 10.
7. **Still birth/live birth**: If a child is born dead (does not breathe at all) it is a still birth. If the child dies after two hours the health worker should record it as a **live birth** in column 11. She should also enter "died after two hours" and the reason for the death in column 14.
8. **Remarks (column 14)**: The health worker should note down the date of post-natal visit, condition of the woman and the condition of the baby in this column. If the pregnancy results in an abortion, the health worker should draw a line across all the columns after the woman's name and write in remarks that it was an abortion. The date of the abortion could also be noted.

### Information that can be got from these records

- \* The total number of pregnant women in the village in one year.



- \* The total number of women who have delivered in one year (this is also the number of births that have taken place in the village in one year).
- \* The number of spontaneous abortions in one year
- \* The number of women covered by tetanus toxoid in one year
- \* The number of women contacted in the first trimester/second trimester/third trimester.
- \* The number of normal deliveries conducted at home, the number of deliveries conducted by dais etc.

Thus, this system of records which have been developed mainly for providing services during pregnancy, can also give the health worker, useful and accurate information about the village, as compared to a survey of pregnant women done at only one point of time.

However, maintaining such records requires not only a good contact with women but also with the dais in the village.

The information collected through these records should be shared by the health worker during her discussions with the women. For instance, if the health worker finds that there are several low birth weight babies being born, and the women are also anaemic, then the health worker could discuss the reasons for anaemia not only in pregnant women but among the women in general.

Similarly, keeping good records in the dispensary can give valuable information such as the disease pattern in the area and the disease pattern in relation to economic status, all of which eliminates the need to do a

### Collecting systematic information without a questionnaire

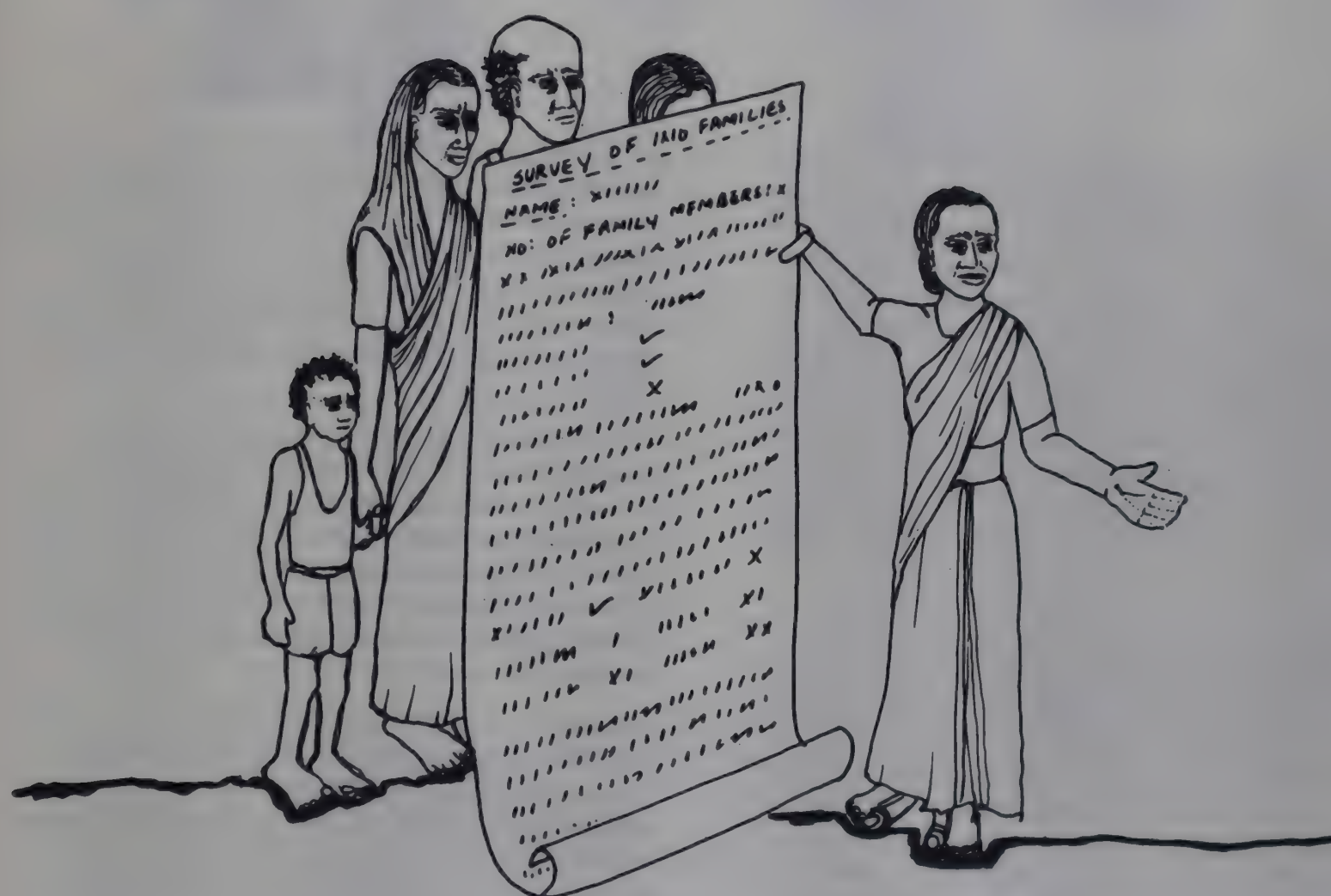
Depending upon the kind of information that will be required, and the purpose for which it will be used, systematic information can be collected without the use of a formal survey questionnaire as the following example shows.

A group of health workers working in a tribal area in Bihar, received a small donation to help the people during a period of drought. The health workers who had a good relationship with the village people discussed with them how best this money could be used. The people said that they needed to buy seeds for the coming sowing season otherwise they would have to borrow again and go deeper into debt. Since it was necessary to know how much seed was required by each family it was decided by the group that a few people from the village would collect the information from each family and give it to the health workers.

The selected persons prepared a simple way to collect the information which was as follows

Name of head of family	Amount of land	Type of land	Quantity of seed needed	Signature or thumb impression





This method of collecting the information was also helpful during the distribution of the seeds. In this whole process, the role of the health workers was limited to initiating the discussion and buying the seed. It was the village people who conducted the survey and used the information.

If this programme or a similar one had been carried out without a good contact with the people or if the health workers themselves had carried out the survey (as often happens), there was a high possibility that the information collected would be incorrect.

### Conclusion

- Surveys should not be used as a substitute for getting to know people.
- All information collected through a survey should be shared with the village people and should be of benefit to them.
- Surveys should not be used to manipulate people into accepting a health programme.
- Surveys are not the only way of collecting systematic information about the village.



## 5 : Widening the scope of health work



In this section, we have discussed some ways in which health workers can help people in the village to start looking at their health problems differently and to come together to seek solutions to some of them. In this work, the aim of the health worker is not only to reduce morbidity and mortality in the village, but to also build up people's confidence in their ability to actively seek solutions themselves. The purpose of the health worker in going through this long and painstaking process is to bring about a change in the way in which the medical system looks at illhealth and also to bring about a change in the way people view modern medicine as a solution to their health problems.

We have seen how the medical system selectively emphasises certain aspects of disease causation and thereby creates the impression that illhealth is due to the personal failure of individuals rather than the way in which society is organized. We have also seen how the medical system prevents people from questioning such a view by exercising control over medical knowledge. Thus, by promoting and propagating a one-sided view of illhealth and by choosing health priorities which are basically in the interests of powerful groups in society (through health education, population control etc.), modern medicine exercises control over the thinking and behaviour of people. The result of this control is that the medical system further adds to and reinforces the helplessness which people already experience in relation to the other aspects of life.

The health worker on the other hand tries to **help people question rather than passively accept the views propagated by modern medicine**. By helping people to critically examine the advice given by doctors and the information given through health messages, the health worker can help people to decide the extent to

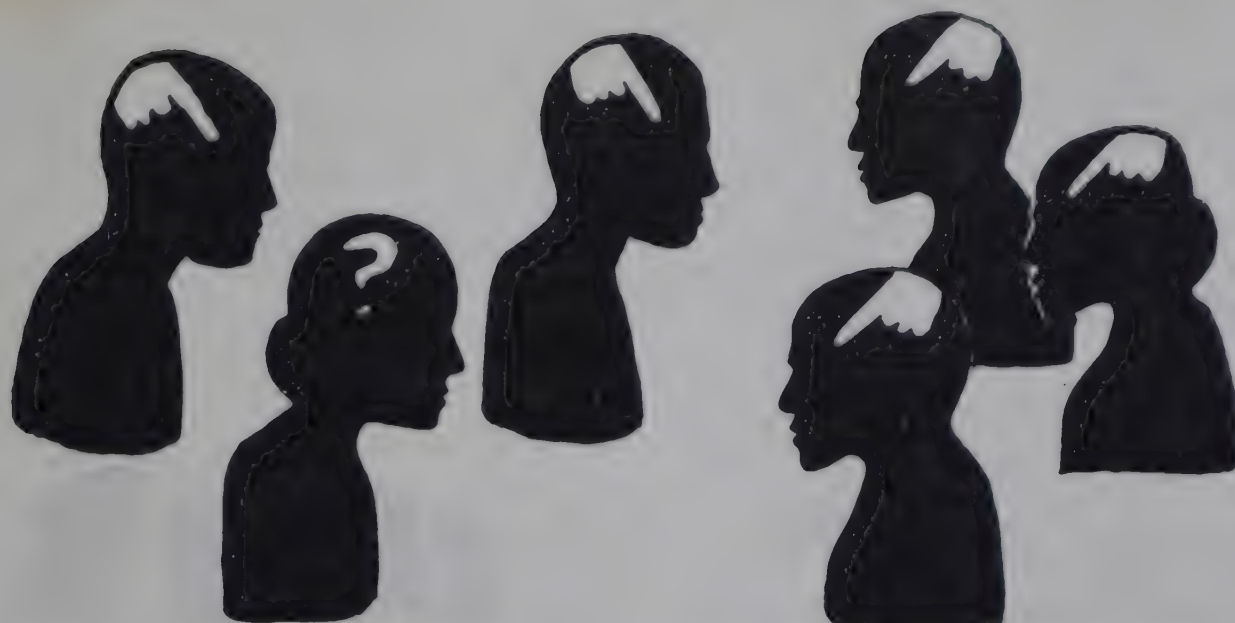
which these are relevant to their lives. Further, she encourages people to develop their own understanding of the causes of illhealth by pointing out how disease is related to other aspects of life. In the course of her day to day activities the health worker can bring about a change in people's perception of themselves as well as their perception of illness and the solutions available to them.

By sharing her medical knowledge and skills with as many people as are interested, by helping people to learn how to diagnose and treat common ailments or by training village health workers, not only is the health worker helping people to have access to medical care, but she also helps people to break the myth that medical knowledge is mysterious and outside the capacity of ordinary people.

Instead of forcing people to accept the decisions made by health personnel regarding their health, health workers can **actively encourage people to decide what is more suitable to their needs**. For instance, by sharing information and discussing the advantages and disadvantages of various contraceptive methods, a health worker can help people to decide which method is more suitable for them and when it would be appropriate for them to adopt such methods. In doing this she helps to break the myth that all the solutions proposed by the medical system are in the interests of people.

Further, by encouraging people to question the relevance of both traditional practices and those propagated by modern medicine she can not only help people to understand the basis of such practices but also help them to decide which is more rational. For instance, by encouraging people to compare the appropriateness of the traditionally used squatting position for delivery and the horizontal position propagated by





health personnel, she can help people decide which is more appropriate. She can point out that while the squatting position may be more advantageous for normal deliveries the horizontal position becomes necessary when surgery is indicated.

The health worker can also **help people to develop a wider understanding of the causes of illhealth.** By helping people to consider the reasons for disease occurring more frequently among certain groups of people in the village, she can help to make the important connection between socio-economic status and disease. In doing this she can help people to realize that ill-health is not primarily due to an individual's own fault, rather it is due to the exploitative practices which prevent people from leading healthier lives.

Further, the health worker can point out how medical care has become a commodity which is available only to those who can pay for it. People can decide the truth of this themselves by considering which people in the village are able to seek medical relief and which groups are unable to do so. Further by comparing the medicines prescribed by different doctors for the same disease, or by showing the irrationality of some of these prescriptions, the health worker can help people to realize how some doctors operate from their own economic interests rather than from the interest of the sick person.

The health worker can go a step further by pointing out how medicines are short term and sometimes dangerous solutions to the problems of illhealth and also discuss the extent to which such solutions can help to improve the overall health status of people. In doing this the health worker breaks the myth that better health can be achieved merely by purchasing medical care and points out how a long lasting im-

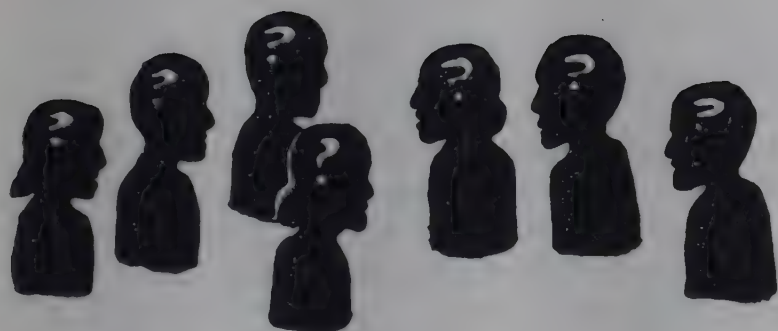
provement in health can only be achieved through a **collective struggle towards changing the present social and economic conditions.**

If looked at in isolation, each of these examples may seem too insignificant to make a long lasting impact. However, if we consider, that the present attitudes and beliefs of people are also based on small day to day interactions which go into forming their view of reality, then, each small change in these interactions helps people to create a different perception of themselves and their reality.

Further, it is a change in these attitudes and the success won out of small actions which is the necessary first step for people to start questioning or dealing with the larger issues which are responsible for their oppression. It is only from such small efforts that people can gain the confidence and the desire to join with other oppressed groups to tackle more fundamental issues.

Thus, the health worker can play a vital role by initiating the process which leads to change. But there is a limit to what she together with people from 2 or 3 villages will be able to achieve. This is because it will not be possible for such a small group to challenge the tremendous power exercised by the landlords or the medical profession. Neither will such a group be large enough to pressurize multinational companies or the government to bring about a change in their policies. To deal with such issues it will be necessary to join other groups or organizations which are working towards similar goals. Only by doing this can the small efforts made by all such groups combine to become a movement which is necessary if fundamental changes are to be brought about in the organization of present society. In making such decisions, i.e., whether to become part of a larger movement or not the health





306 workers and the people with whom they are working will need to be aware of the repercussions which are bound to arise as a result of their efforts at bringing about change.

Each health worker will therefore have to decide the possibilities open to her just as she and the village people will have to decide the extent to which they can act to solve their problems.



**Each health worker interested in improving the health status of the poor people will need to make a few important decisions :**

**Where does she want to spend most of her time—in the dispensary or in the village?**

**Which group of people does she want to work with—the better-off or the poor?**

**Does she want to continue with her present activities the way they are or does she want to bring about a change in her role?**

**Will her present institution support her if she wants to change the direction of her work or does she need to work with another group?**

**Can she build up support for her work and herself from any source?**

**Is she willing to go through the personal struggle which such work may involve?**

**Similar decisions taken by other health workers and their experiences can be a source of encouragement and support to all of us struggling to make these decisions.**



# GLOSSARY

The following is a list of terms used in the text. They are arranged in alphabetical order with their explanation alongside. Some of these terms may have several meanings. We have given an explanation of the term in the context of its usage in the book.

## 1. Abortion:

The termination of a pregnancy before the completion of 28 weeks i.e. before the foetus has developed to a stage where it can survive outside the uterus. Abortions can be either spontaneous or induced. Spontaneous abortion refers to the termination of pregnancy due to natural causes. Induced abortion refers to the termination of pregnancy due to outside intervention. In India, according to the Medical Termination of Pregnancy (MTP) Act, those pregnancies which are terminated artificially after the 20th week, those which are carried out by non-allopathic practitioners, and those that are terminated for reasons other than those given in the Act are considered illegal abortions.

## 2. Basal Metabolic Rate :

The total energy required by an individual is made up of two main components (a) basal energy and (b) the energy required for carrying out actual physical activities. Basal energy is the energy that is required by the body for carrying out essential functions such as respiration, blood circulation, digestion, absorption and excretion, maintenance of body temperature etc. Even when the individual is resting the body continues to use a certain amount of energy for these vital functions. The amount of energy thus spent when the body is at complete rest (both mentally and physically) is known as basal metabolism. Age, sex, height, weight and state of nutrition of an individual are some of the factors

which influence it. The basal metabolism for a given age, sex and size is taken as the starting point for the calculation of the total energy requirement of individuals.

## 3. Belief:

An opinion or doctrine believed to be true even though it cannot be proved beyond doubt. An example of an emotionally held belief is that the sight of an inauspicious person such as a low caste, widow etc. the first thing in the morning will ensure bad luck for the rest of the day.

## 4. Bio-physiological phenomena:

This refers to the different processes in living organisms such as the process of digestion, respiration etc. which are vital in maintaining life.

## 5. Cash Crops:

Crops grown for sale rather than for family consumption.

## 6. Chemoprophylaxis:

This refers to the taking of specific drugs to prevent specific disease in an individual, eg. chloroquine to prevent malaria and penicillin to prevent rheumatic fever.

## 7. Class:

An economic ordering of people in society. People whose earnings fall within a specific income range are grouped as belonging to one class. This economic grouping also broadly implies a similar social position of members within a class.



## 8. Communities:

A social group of any size whose members reside in a specific locality, and have a common culture and historical heritage.

## 9. Consumption unit:

If the age composition of the members of a household are taken into account when measuring living standards, consumption patterns etc. the concept of consumption unit is used by counting an adult person as one unit and the other members in relation to this. For the purposes of their study of Thaiyur Village, Djurfeldt and Lindberg have defined C.U. as follows:

Age of individual	Counted as
1-3 years	$\frac{1}{4}$ consumption unit
4-7 years	$\frac{1}{2}$ consumption unit
8-14 years	$\frac{3}{4}$ consumption unit
15-59 years	1 consumption unit
60 years & above	$\frac{3}{4}$ consumption unit

## 10. Custom:

A practice so long established that it has the force of law, eg. the custom of giving dowry to daughters.

## 11. Endemic:

When a disease is prevalent in a geographical area continuously at the relatively same level, without being brought in from outside, the disease is said to be endemic to that area. Common endemic diseases in India today include typhoid fever, leprosy, filariasis, amoebiasis and tuberculosis.

## 12. Epidemic:

When a particular disease affects a large number of people in a geographical area (a city, several villages

etc) beyond what is normally expected for that population at a point of time, the disease is referred to as an epidemic.

## 13. Immune Response:

Immunity is defined as the ability of the body to recognize, destroy and eliminate any antigenic material (disease producing organism; tissue grafts, etc.) which it does not recognize as its own. The body's ability to respond in such a manner is called immune response. This response can also be artificially induced as in immunization. Several factors such as age, nutritional status, racial differences are known to affect the immune response in individuals.

## 14. Incidence rate:

Incidence refers to the total number of **new** cases of an illness during a given period in a specified population. The incidence rate is defined as the frequency of occurrence of new cases of an illness in a population. It is measured as follows:

$$\text{Incidence rate (persons)} = \frac{\text{No. of persons starting illness} \times 100}{\text{Population at risk}}$$

$$\text{Incidence rate (spells)} = \frac{\text{No. of new spells of illness} \times 100}{\text{Population at risk}}$$

Population at risk includes all those persons who would in the event of their becoming sick be recorded as sick in the context of the study undertaken.

## 15. Infant Mortality Rate:

This is the number of infant deaths under one year of



age per 1000 live births in any population in one year and is calculated as follows:

$$\text{IMR} = \frac{\text{No. of deaths under one year of age} \times 1,000}{\text{Total no. of live births in the year.}}$$

#### 16. Marginal farmer:

A farmer owning less than one hectare of land.

#### 17. Maternal Mortality Rate:

A maternal death is considered as one which is caused by reasons directly related to pregnancy or childbirth and occurs during pregnancy or within 6 weeks of the delivery. The maternal mortality rate is calculated as follows:

$$\text{MMR} = \frac{\text{Number of deaths directly due to pregnancy or child-birth, occurring during pregnancy or within 42 days of the delivery} \times 1,000}{\text{Total number of live births in the year.}}$$

#### 18. Morbidity:

Refers to the extent of illness in a population. It is difficult to measure because the same illness may occur repeatedly in an individual, an individual may fall sick with different illnesses in one year, the duration of an illness may range from a few hours to several years, and because different individuals may experience the illness differently.

However morbidity rates are important because they, unlike mortality figures, estimate the load of sickness and disability that precedes death and which is caused by chronic conditions such as arthritis and mental illness which do not lead to death. Morbidity is measur-

ed in terms of (1) persons who are ill (2) spells of sickness experience (3) duration of illness.

Two rates which are commonly used for measuring morbidity in a population are the incidence and prevalence rates.

#### 19. Mortality:

This refers to the deaths in a population. The mortality or death rate is defined as the number of deaths per 1000 (estimated mid-year) population and measures the rate at which deaths are taking place from various causes in a given population during a specified period. It is calculated as follows:

$$\text{Death rate} = \frac{\text{No. of deaths during the year} \times 1000}{\text{Mid-year population}}$$

The death rates due to specific causes, in specific age, sex or occupational groups and in specific periods etc. are called specific death rates. The calculation of IMR and MMR is given separately.

#### 20. Mortgage:

To pledge land, property or any valuable as security for a loan.

#### 21. Palpitations:

An abnormally rapid or violent beating of the heart which the individual is painfully aware of.

#### 22. Pandemic:

When a disease spreads from one country to another in a short time or occurs at the same time in different countries eg. the influenza pandemic in 1957 and cholera pandemic in 1962.



### 23. Placebo effect:

When a patient actually gets better after being given a substance known to have no therapeutic effect (placebo) because he/she believes it to be a medicine, it is called the placebo effect.

### 24. Political power:

The power to make decisions which affect the lives of people in crucial ways especially in relation to their survival eg. people's income, threat to physical life etc. A person does not have to be in Politics or a member of a political party to exercise political power. A husband even from a poor family can exercise political power over his wife as explained in the text.

### 25. Prevalence rate:

Prevalence refers to the total number of cases (both old and new) of an illness at a given point of time or during a given period of time. If prevalence is recorded at a point of time it is calculated as follows:

$$\begin{array}{lcl} \text{Point preva-} & & \text{No. of persons who are sick (old \& \\ \text{lence rate} & = & \text{new cases at a given time)} \times 100 \\ \text{(persons)} & & \text{Population exposed to risk at that time} \end{array}$$

If prevalence is recorded over a given period of time it is calculated as follows:

$$\begin{array}{lcl} \text{Period preva-} & & \text{No. of persons who are sick some-} \\ \text{lence rate} & = & \text{time during a definite period} \times 100 \\ \text{(persons)} & & \text{Average no. of persons exposed to} \\ & & \text{risk during that same period.} \end{array}$$

The prevalence rate may be calculated in terms of the persons affected or in terms of the spells of sickness.

Prevalence rate is especially useful in the study of chronic diseases such as leprosy and tuberculosis.

### 26. Public health measures:

Measures taken by the government to ensure a healthy environment, for example water supplies, sewage systems and garbage disposal.

### 27. Quack:

Someone who pretends to have medical knowledge and skills in any system of medicine which he/she does not possess.

### 28. Quarantine:

The isolation of well persons who have come into contact with an infectious disease, for a specified period of time equal to the longest incubation period of the disease. This is done to prevent contact with those who are not exposed to the disease and thereby checking the spread of the disease. This is especially important with regard to international travellers who are likely to transport infection across national boundaries. WHO has fixed the incubation periods of the different diseases according to international regulations.

### 29. Referral system:

The system of sending patients whose illness cannot be diagnosed or who cannot be treated at the centre to a hospital where more specialised services are available. For example, the sub-centre staff refers patients to the PHC and the PHC in turn refers patients to the district hospital and so on. The health services structure in India is based on the concept of a referral system. This is so that the specialised hospitals do not get flooded with people having ordinary illnesses.



**30. Ritual:**

An established or prescribed procedure for a religious or social ceremony, for example burning camphor or incense during a religious ceremony.

**31. Ritual uncleanliness:**

Physically or morally impure (according to religious laws or social customs) to perform or participate in rituals. For example coming into contact with an "untouchable" is considered to make an individual ritually unclean. Members of a family at the time of a birth or death in the household and a menstruating woman are also considered ritually unclean.

**32. Societies:**

A term broadly used to mean a structured system of human organization for large scale community living that **normally** provides protection, security and an identity.

**33. System of healing:**

This refers to the set of beliefs and practices which together form the way in which a society deals with disease and sickness. Provision of health care throughout the world has taken many forms. People in different societies have developed some explanations of sickness and death and accordingly have also developed

some form of taking care of the sick. These beliefs and practices together constitute a system of healing for that community.

A system of healing may range from one in which a wise person is sought for medical help to those that are well established and complex systems of healing such as Ayurveda, and Modern Medicine.

**34. Taboo:**

Something that is avoided, banned or not allowed because of a cultural belief, for example food taboos related to the diet of a pregnant woman.

**35. Technology:**

The application of theoretical knowledge in developing methods and processes which make the life of humankind easier. Technology thus includes simple things like wheels and knives to electronic equipment and computers.

**36. Tenant:**

Person who holds, on certain conditions, temporary possession of any land or place.

**37. Tradition:**

Practices, customs and beliefs handed down from one generation to another by example or word of mouth.



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RURAL INFRASTRUCTURE DEVELOPMENT  
TRAINING PROGRAMME  
2, BENSON ROAD, BENSON TOWN,  
BANGALORE - 560 046.







